SOSEN

SSE-HH3~6K-P1-EU

Single Phase | 2 MPPTs Hybrid Inverter (HV)

The SSE-HH3~6K-P1-EU is a high-efficiency single-phase hybrid inverter for home energy storage, supporting 80–480V high-voltage lithium batteries for a compact system design. Seamless on/off-grid switching occurs in under 15ms. Dual input (inverter + grid bypass) handles up to 2× rated load for peak demand. Ultra-quiet operation (<25dB), IP65 protection, and full power output up to 4000m altitude ensure reliable performance. Compact, plug-and-play design allows easy installation.



- Compatible with HV Battery for Higher Efficiency
- <15ms Seamless Switching for Uninterrupted Power
- Inverter + Grid Bypass Supports up to 2× Total Load Capacity
- IP65 Rated, Ultra-silent Operation below 25dB
- Full Output at 4000m Altitude With No Derating Required
- Compact Design for Fast Easy Installation

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TECHNICAL SPECIFICATION					
Model	SSE-HH3K-P1-EU	SSE-HH3K7-P1-EU	SSE-HH4K6-P1-EU	SSE-HH5K-P1-EU	SSE-HH6K-P1-EU
INVERTER INPUT / OUTPUT(GRID)					
Rated Power (kW)	3+3 (bypass)	3.68+3.68 (bypass)	[1] 4.6+4.6 (bypass)	[2] 5+5 (bypass)	6+6 (bypass)
Rated Voltage	220 / 230 / 240V a.c.,L+N+PE				
Rated Frequency (Hz)	50 / 60				
Power Factor Range	0.8 leading~0.8 lagging				
Switch Time (ms)	< 15				
Max.Continuous Current (Input/Output)(A a.c.)	13	16	20	21.7	26.1
Max.Output Overcurrent Protection	250V / 60A a.c.				
BATTERY					
Battery Type	Lithium				
Battery Voltage Range (V d.c.)	80 ~ 480				
Rated Battery Voltage (V d.c.)	300				
Max.Charge Current (A d.c.)	35				
Max.Discharge Current (A d.c.)	35				
Reverse Connect Protection	Yes				
PV INPUT					
No.of MPPT Tracker / Strings	2 / 1+1				
Max.PV Input Power (kW)	3 / 3	3.68 / 3.68	4.14 / 4.14	4.5 / 4.5	4.5 / 4.5
Max.DC Voltage (V d.c.)	600				
MPPT Voltage Range (V d.c.)	80~550				
Start-up Voltage (V d.c.)	120				
Max.Input Current / sring (A d.c.)	16+16				
Isc PV (Absolute Maximum) / sring (A d.c.)	24+24				
AC OUTPUT(EPS) / GENERATOR					
EPS Rated Output Voltage	220 / 230 / 240V a.c.,L+N+PE				
EPS Rated Output Frequency (Hz)	50 / 60				
EPS Rated Output Active Power (kW)	3	3.68	4.6	5	6
EPS Rated Output Apparent Power (kVA)	3	3.68	4.6	5	6
EPS Rated Output Current (A a.c.)	13	16	20	21.7	26.1
Overload Capacity (Off Grid)	110% 30s / 120% 10s / 150% 0.2s				
EFFICIENCY					
MPPT Efficiency	99.90%				
Euro-efficiency	97.00%				
Max.Efficiency	97.80%				
PROTECTION & FEATURE					
Insulation Monitoring	Yes				
Residual Current Monitoring	Yes				
Parallel Function	Yes				
Protection Degree	IP65				
Certifications	EN IEC 62109-1/2、EN IEC 62477-1、IEC 62040-1、EN IEC 61000-6-1/3、RoHS 2.0、EN 50549-1&-10、Hungary、Greece、Romania、Czechia、Netherlands、VJV2018 for Finland、France、Poland、C10/11:2021 for Belgium、Ireland、CEI 0-21、G99/G98、UNE 217001&2/NTS 631、VDE-AR-N 4105、AS/NZS 4777.2				
Other Protection	Ground fault current monitoring, Earth fault detection, Residual current(RCD)Detection etc.				
GENERAL PARAMETER					
Storage Temperature	-25℃~+60℃				
Operating Temperature	-25℃ ~ +60℃ (Linely derating to 60% when exceed +45℃ ~ +60℃)				
Humidity	0%~100% (Non-condensing)				
Max.operating altitude (m)	<4000				
Noise (dB)	<25				
Machine Dimensions(W*H*D) (mm)	480*480*180				
Machine Weight / N.W. (kg)	20				
DISPLAY & COMMUNICATION					
Display	LED+APP				
Interface	RS485 / WiFi / CAN / Bluetooth / Meter / DRM (Optional)				

- 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.

[1]: The grid feed in power for VDE-AR-N 4105 is limited 4600VA & 20A.
[2]: The grid feed in power for AS/NZS 4777.2 is limited 4999VA & 21.7A.