

S6-EH3P(12-20)K-H

Solis Three Phase High Voltage Energy Storage Inverters

Features:

- Generator-compatible to extend backup duration during grid power outage
- Supports dual backup ports for intelligent control of critical and non-critical loads
- SG heat pump compatibility
- Supports a maximum input current of 20A, making it ideal for all high-power PV modules of any brand
- Supports AC voltage detection of grid and generator output to prevent damage to generators from reverse current from the grid
- Supports peak shaving features
- Supports Unbalanced and Half-Wave Loads on both the Grid and Backup Port

Models:

S6-EH3P12K-H

S6-EH3P15K-H

S6-EH3P20K-H



DATASHEET

S6-EH3P(12-20)K-H

Models	12K		15K		20K	
Input DC (PV side)						
Recommended max. PV array size	24 kW		30 kW		40 kW	
Max. usable PV input power	19.2 kW		24 kW		32 kW	
Max. input voltage			1000 V			
Rated voltage			600 V			
Start-up voltage			160 V			
MPPT voltage range			200 - 850 V			
Max. input current			4 × 20 A			
Max. short circuit current			4 × 30 A			
MPPT number / Max. input strings number			4 / 4			
Battery						
Battery type			Li-ion			
Battery voltage range			120 - 800 V			
Max. charge / discharge power	12 kW		15 kW		20 kW	
Max. charge / discharge current			50 A			
Communication			CAN / RS485			
Output AC (Grid side)						
Rated output power	12 kW		15 kW		20 kW	
Max. apparent output power	12 kVA		15 kVA		20 kVA	
Rated grid voltage			3/N/PE, 220 V / 380 V, 230 V / 400 V			
Rated grid frequency			50 Hz			
Rated grid output current	18.2 A / 17.3 A		22.8 A / 21.7 A		30.4 A / 28.9 A	
Max. output current	18.2 A / 17.3 A		22.8 A / 21.7 A		30.4 A / 28.9 A	
Power factor			> 0.99 (0.8 leading - 0.8 lagging)			
THDi			< 3%			
Input AC (Grid side)						
Input voltage range			304 - 437 V / 320 - 460 V			
Max. input current	27.3 A / 26.0 A		34.2 A / 32.5 A		45.6 A / 43.3 A	
Rated grid frequency			50 Hz / 60 Hz			
Frequency range			45 - 55 Hz / 55 - 65 Hz			
Input Generator						
Max. input power	12 kW		15 kW		20 kW	
Max. input current	18.2 A / 17.3 A		22.8 A / 21.7 A		30.4 A / 28.9 A	
Rated input frequency			50 Hz			
Output AC (Back-up)						
Rated output power	12 kW		15 kW		20 kW	
Max. apparent output power			1.6 time of rated power, 10 s			
Back-up switch time			< 10 ms			
Rated output voltage			3/N/PE, 220 V / 380 V, 230 V / 400 V			
Rated frequency			50 Hz			
Rated output current	18.2 A / 17.3 A		22.8 A / 21.7 A		30.4 A / 28.9 A	
THDv (@linear load)			< 3%			
Efficiency						
Max. efficiency			97.7%			
EU efficiency			97.5%			
BAT charged by PV max. efficiency			98.5%			
BAT charged / discharged to AC max. efficiency			97.2%			
Protection						
Anti-islanding protection			Yes			
Output over current protection			Yes			
Short circuit protection			Yes			
Integrated AFCI 2.0			Optional			
Integrated DC switch			Yes			
DC reverse-polarity protection			Yes			
PV over voltage protection			Yes			
Battery reverse protection			Yes			
General Data						
Max. allowable phase imbalance (grid & back-up)			100%			
Max. power per phase (grid & back-up)			40% rated power			
Dimensions (W × H × D)			563 × 546 × 250 mm			
Weight			35.2 kg			
Topology			Transformerless			
Self-consumption (night)			< 25 W			
Operating ambient temperature range			-25 ~ +60°C			
Relative humidity			0 - 95%			
Ingress protection			IP66			
Noise emission (typical)			< 65 dB(A)			
Cooling concept			Intelligent fan-cooling			
Max. operation altitude			4000 m			
Grid connection standard	EN 50549-1/-10, VDE4105, CEI 0-21, CEI 0-16, NC-RFG TypeB, NRS 097-2-1, LTU-1, G99, PEA					
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4					
Features						
PV connection			MC4 connector			
Battery connection			OT terminal			
AC connection			OT terminal			
Display			7.0" LCD display & Bluetooth + APP			
Communication	CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN					