

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 / 60 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 / 60 Hz	
Output AC (Back-up)				
Rated output power	12 kW		15 kW	20 kW
Max. apparent output power	2 times of rated power, 10 s			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 / 60 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)	50% rated power			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			2000 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			