

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		