



solis

20th
ANNIVERSARY

Solis Solarator Series

Experience Uninterrupted Power with Solis Energy Storage Inverters

Energy Storage Inverters

S6-EH3P(12-20)K-ND-H

Three Phase | High Voltage



Smart Energy Management

- AI intelligently manages charging and discharging based on TOU (Time-of-Use) tariffs
- Seamless integration with VPP and EMS platforms for enhanced energy optimization
- Built-in control for SG-ready heat pumps



High Performance

- Supports three-phase unbalanced output, allowing up to 40% of rated inverter power per phase
- 160% PV input capacity to maximize solar energy utilization
- Switching time < 10ms



Flexible & Scalable

- Compatible with mainstream lithium batteries
- Easily expand system capacity using parallel connections and AC coupling



Simple & Fast Configuration

- Bluetooth app support for quick and easy setup

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DATASHEET

S6-EH3P(12-20)K-ND-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			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)			40% rated power	
Dimensions (W × H × D)			563 × 546 × 235 mm	
Weight			32.6 kg	
Topology			Transformerless	
Self-consumption (night)			< 25 W	
Operating ambient temperature range			-25 ~ +60°C	
Relative humidity			0 - 100%	
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			LED indicator & Bluetooth + APP	
Communication	CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN			