

S6-EH3P(5-10)K-H-AU

Solis Three Phase High Voltage Energy Storage Inverters

Unique Advantages

- ★ Supports up to 4 MPPTs, suitable for multi-orientation and occlusion, to improve power generation

Leading Advantages

- Supports PV input up to 160% of the inverter's rated DC power, maximising solar utilisation
- 160% overload for 60s in off-grid mode, ensuring stable startup of motors, water pumps and air conditioner
- Seamless on/off-grid switching in under 10ms, guaranteeing an uninterrupted power supply
- Support three-phase unbalanced output, each phase supports output max. 50% rated inverter power
- Supports existing PV grid-tied power connection for export control and off-grid use
- Support grid side generator access, adapting to scenarios with insufficient power supply
- Support max 6 units in parallel, for expanding system capacity
- Customizable battery backup level for uninterrupted power
- PV only off grid mode, to reduce the initial investment cost
- AI-Powered & VPP-Ready - maximise savings, unlock additional income
- Ingress protection IP66, adapting to harsh ambient conditions

Models:

S6-EH3P5K-H-AU / S6-EH3P6K-H-AU

S6-EH3P8K-H-AU / S6-EH3P10K-H-AU



360° View



DATASHEET

Models	5K	6K	8K	10K
Input DC (PV side)				
Recommended max. PV array size	10 kW	12 kW	16 kW	20 kW
Max. input voltage		1000 V		
Rated voltage		600 V		
Start-up voltage		160 V		
MPPT voltage range		200 - 850 V		
Max. input current	16 A / 16 A / 16 A			4 × 16 A
Max. short circuit current	24 A / 24 A / 24 A			4 × 24 A
MPPT number / Max. input strings number	3 / 3			4 / 4
Battery				
Battery type		Li-ion		
Battery voltage range		120 - 600 V ^①		
Max. charge / discharge power	5 kW	6 kW	8 kW	10 kW
Max. charge / discharge current		25 A		50 A
Communication		CAN / RS485		
Output AC (Grid side)				
Rated output power	5 kW	6 kW	8 kW	10 kW
Max. apparent output power	5 kVA	6 kVA	8 kVA	10 kVA
Rated grid voltage		3/N/PE, 380 V / 400 V		
Rated grid frequency		50 Hz		
Rated grid output current	7.6 A / 7.2 A	9.1 A / 8.7 A	12.2 A / 11.5 A	15.2 A / 14.4 A
Max. output current	7.6 A / 7.2 A	9.1 A / 8.7 A	12.2 A / 11.5 A	15.2 A / 14.4 A
Power factor		> 0.99 (0.8 leading - 0.8 lagging)		
THDi		< 3%		
Input AC (Grid side)				
Input voltage range		304 - 437 V		
Max. input current	11.4 A / 10.9 A	13.6 A / 13.0 A	18.2 A / 17.4 A	22.7 A / 21.7 A
Rated grid frequency		50 Hz		
Frequency range		45 - 55 Hz		
Output AC (Back-up)				
Rated output power	5 kW	6 kW	8 kW	10 kW
Max. apparent output power		1.6 times of rated power, 60 s		
Back-up switch time		< 10 ms		
Rated output voltage		3/N/PE, 380 V / 400 V		
Rated frequency		50 Hz		
Rated output current	7.6 A / 7.2 A	9.1 A / 8.7 A	12.2 A / 11.5 A	15.2 A / 14.4 A
THDv (@linear load)		< 2%		
Efficiency				
Max. efficiency	96.50%	97.00%	97.50%	97.90%
EU efficiency	96.77%	97.10%	97.41%	97.51%
BAT charged by PV max. efficiency	98.37%	98.45%	98.22%	98.31%
BAT charged / discharged to AC max. efficiency	97.32%	97.34%	97.50%	97.50%
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		
Dimensions (W × H × D)	600 × 500 × 210 mm		600 × 500 × 230 mm	
Weight	27.6 kg		30.2 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)		< 46.9 dB(A)		
Cooling concept		Natural cooling		
Max. operation altitude		4000 m		
Grid connection standard		AS 4777.2:2020		
Safety / EMC standard		IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-3		
Features				
PV connection		MC4 connector		
Battery connection		Quick connection plug		
AC connection		Quick connection plug		
Display		LED indicator & Bluetooth + APP		
Communication		CAN, RS485, Optional: Wi-Fi, Cellular, LAN		
Country of manufacture		China		

^① Supports max. battery voltage to 700 V.