

S6-EH1P(9.9-16)K03-NV-YD-L

Solis Single Phase Low Voltage Energy Storage Inverters

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

- 160% PV input capacity to maximize solar energy utilization

Flexible & Scalable

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

Simple & Fast Configuration

- 7-inch LCD screen for an intuitive user experience
- Bluetooth app support for quick and easy setup

Models:

S6-EH1P9.9K03-NV-YD-L

S6-EH1P10K03-NV-YD-L

S6-EH1P12K03-NV-YD-L

S6-EH1P14K03-NV-YD-L

S6-EH1P16K03-NV-YD-L



DATASHEET

S6-EH1P(9.9-16)K03-NV-YD-L

Models	9.9K	10K	12K	14K	16K
Input DC (PV side)					
Recommended max. PV array size	19.8 kW	20 kW	24 kW	28 kW	32 kW
Max. usable PV input power	15.84 kW	16 kW	19.2 kW	22.4 kW	22.4 kW
Max. input voltage	550 V				
Rated voltage	380 V				
Start-up voltage	100 V				
MPPT voltage range	100 - 450 V				
Max. input current	40 A / 40 A / 40 A				
Max. short circuit current	50 A / 50 A / 50 A				
MPPT number / Max. input strings number	3 / 6				
Battery					
Battery type	Li-ion / Lead-acid				
Battery voltage range	40 - 60 V				
Max. charge / discharge current	208 A	208 A	250 A	290 A	290 A
Communication	CAN / RS485				
Output AC (Grid side)					
Rated output power	9.9 kW	10 kW	12 kW	14 kW	16 kW
Operation phase	L/N/PE				
Rated grid voltage	220 V / 230 V				
Rated grid frequency	50 Hz / 60 Hz				
Rated grid output current	45 A / 43.1 A	45 A / 43.1 A	54.5 A / 52.2 A	63.6 A / 60.9 A	72.7 A / 69.6 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)				
THDi	< 3%				
Input AC (Grid side)					
Input voltage range	187 - 253 V				
Max. input current	67.5 A / 64.5 A	67.5 A / 64.5 A	81.8 A / 78.3 A	95.5 A / 91.3 A	109.1 A / 104.3 A
Frequency range	45 - 55 Hz / 55 - 65 Hz				
Output AC (Back-up)					
Rated output power	9.9 kW	10 kW	12 kW	14 kW	16 kW
Max. apparent output power	2 times of rated power, 10 s				
Back-up switch time	< 4 ms				
Rated output voltage	L/N/PE, 220 V / 230 V				
Rated frequency	50 Hz / 60 Hz				
Rated output current	45 A / 43.1 A	45 A / 43.1 A	54.5 A / 52.2 A	63.6 A / 60.9 A	72.7 A / 69.6 A
THDv (@linear load)	< 3%				
Input Generator					
Max. input power	9.9 kW	10 kW	12 kW	14 kW	16 kW
Max. input current	45 A / 43.1 A	45 A / 43.1 A	54.5 A / 52.2 A	63.6 A / 60.9 A	72.7 A / 69.6 A
Rated input frequency	50 Hz / 60 Hz				
Efficiency					
Max. efficiency	97.6%				
EU efficiency	97.0%				
BAT charged by PV max. efficiency	> 94.9%				
BAT charged / discharged to AC max. efficiency	> 94.33% / 93.51%				
Protection					
Surge protection	Yes				
DC reverse-polarity protection	Yes (PV only)				
Ground fault monitoring	Yes				
Integrated AFCI 2.0	Optional				
Protection class / Over voltage category	I / II (PV and BAT), III (MAINS and BACKUP and GEN)				
General Data					
Dimensions (W × H × D)	459 × 845 × 313 mm				
Weight	55.5 kg				
Topology	Transformerless				
Operating ambient temperature range	-25 ~ +60°C				
Ingress protection	IP66				
Noise emission (typical)	< 65 dB(A)				
Cooling concept	Intelligent fan-cooling				
Max. operation altitude	4000 m				
Grid connection standard	NRS 097-2-1, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, EN50549-1				
Safety / EMC standard	IEC/EN 62109-1/-2, EN 61000-6-2/-3				
Features					
DC connection	MC4 plug (PV port) / Terminal Block (BAT port)				
AC connection	Terminal Block				
Display	7.0" LCD display & Bluetooth + APP				
Communication	RS485, Optional: Cellular, Wi-Fi, LAN				