

SINGLE PHASE LOW VOLTAGE ENERGY STORAGE INVERTERS • 3 – 10 KW

Solis S6 Hybrid S6-EH1P(3-10)K-L-PLUS

Solis Single Phase Low Voltage Energy Storage Inverters (S6-EH1P(3-8)K-L-PLUS & S6-EH1P(9-10)K-L-PLUS(21A)) featuring 160% PV input, 10ms UPS switching, and a 7-inch industrial-grade LCD screen.



S6-EH1P3K / 3.6K / 4.6K / 5K / 6K / 8K-L-PLUS • S6-EH1P9K / 10K-L-PLUS(21A) — IP66 (335 × 560 × 253 mm)

160% PV Input & Up to 21A Current

Supports PV input up to 160% of rated DC power, Dual MPPT (up to 4 strings) & 21A PV input current

10ms UPS & 200% Surge (10s)

Seamless on/off-grid switching in 10ms & 200% overload for 10s in off-grid mode for motors & A/C

40–60V Battery & Up to 210A

Compatible with Li-ion & Lead-acid batteries (40V–60V), up to 210A charge/discharge & max 6 units in parallel

7.0" Industrial LCD & SolisCloud

7-inch LCD screen, generator auto-control, Smart Load management & SolisCloud AI optimisation

• The Charge Grid • Solis S6 Hybrid Energy Storage Inverters

C10/11 • EN 50549-1 • IP66 • IEC/EN 62109-1/-2

Solis S6 Hybrid **S6-EH1P(3-10)K-L-PLUS**SINGLE PHASE LOW VOLTAGE ENERGY STORAGE
INVERTERS • 3 – 10 kW

Up to 160% PV & 21A MPPT

10ms Back-up & 200% 10s

Max 6 Units in Parallel

7.0" LCD & SolisCloud AI

KEY FEATURES — S6-EH1P(3-8)K-L-PLUS & S6-EH1P(9-10)K-L-PLUS(21A)

?Supports PV input up to 160% of the inverter's rated DC power, maximising solar utilisation	?Supports up to 21A PV input current, compatible with future higher-power PV modules
?200% overload for 10s in off-grid mode, ensuring stable startup of motors, water pumps and air conditioners	?Seamless on/off-grid switching in under 10ms, guaranteeing an uninterrupted power supply
?More battery options, compatible with any battery (between 40V–60V)	?Supports existing PV grid-tied power connection for export control and off-grid use
?Multiple methods of generator connection and auto control, enabling flexible local deployment	?Support max 6 units in parallel, expanding system capacity
?Smart Load management, extending backup time for critical loads	?Customizable battery backup level for uninterrupted power
?Supports PV-only off-grid operation, reducing upfront costs	?SolisCloud: Smart remote control, AI optimisation, and instant troubleshooting - all in one platform
?7-inch industrial-grade LCD screen, providing a larger, user-friendly interface for local operation	?Ingress protection IP66, for operation in harsh conditions

INPUT DC (PV SIDE)

Models	3K	3.6K	4.6K	5K	6K	8K	9K(21A)	10K(21A)
Recommended max. PV array size	6 kW	7.2 kW	9.2 kW	10 kW	12 kW	16 kW	18 kW	20 kW
Max. usable PV input power	4.8 kW	5.76 kW	7.36 kW	8 kW	9.6 kW	12.8 kW	14.4 kW	16 kW
Max. input voltage	500 V							
Rated voltage	330 V							
Start-up voltage	90 V							
MPPT voltage range	90 - 435 V							
Max. input current	16 A / 16 A				32 A / 32 A		42 A / 42 A	
Max. current per DC input	16 A						21 A	
Max. short circuit current	20 A / 20 A				40 A / 40 A		48 A / 48 A	
MPPT number / Max. input strings number	2 / 2				2 / 4			

BATTERY

Battery type	Li-ion / Lead-acid							
Battery voltage range	40 - 60 V							
Max. charge / discharge current	70 A	80 A	105 A	112 A	135 A	190 A	200 A	210 A
Number of battery port / Number of BMS port	1 / 1							
Communication	CAN / RS485							

Output AC (Grid Side)								
Models	3K	3.6K	4.6K	5K	6K	8K	9K(21A)	10K(21A)
Rated output power	3 kW	3.6 kW	4.6 kW	5 kW	6 kW	8 kW	9 kW	10 kW
Max. apparent output power	3 kVA	3.6 kVA	4.6 kVA	5 kVA	6 kVA	8 kVA	9 kVA	10 kVA
Rated grid voltage	L/N/PE, 220 V / 230 V							
Rated grid frequency	50 Hz / 60 Hz							
Rated grid output current	13.7A / 13.1A	16.4A / 15.7A	20.9A / 20A	22.8A / 21.8A	27.3A / 26.1A	36.4A / 34.8A	40.9A / 39.1A	45.5A / 43.5A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)							
THDi	< 3%							
Input AC (Grid Side)								
Max. input power	4.6 kW	5.5 kW	6.4 kW	7 kW	8.8 kW	11 kW	13.2 kW	14.3 kW
Input voltage range	187 - 253 V							
Max. input current	21 A	25 A	29 A	32 A	40 A	50 A	60 A	65 A
Output AC (Back-up)								
Rated output power	3 kW	3.6 kW	4.6 kW	5 kW	6 kW	8 kW	9 kW	10 kW
Max. apparent output power	2 times of rated power, 10 s							
Back-up switch time	< 10 ms							
Rated output voltage	L/N/PE, 220 V / 230 V							
Rated frequency	50 Hz / 60 Hz							
Rated output current	13.7A / 13.1A	16.4A / 15.7A	20.9A / 20A	22.8A / 21.8A	27.3A / 26.1A	36.4A / 34.8A	40.9A / 39.1A	45.5A / 43.5A
Max. AC passthrough current	35 A	35 A	40 A	40 A	40 A	50 A	60 A	65 A
THDv (@linear load)	< 2%							
Input AC (Generator Side)								
Max. input power	3 kW	3.6 kW	4.6 kW	5 kW	6 kW	8 kW	9 kW	10 kW
Rated input current	13.7A / 13.1A	16.4A / 15.7A	20.9A / 20A	22.8A / 21.8A	27.3A / 26.1A	36.4A / 34.8A	40.9A / 39.1A	45.5A / 43.5A
Rated input voltage	L/N/PE, 220 V / 230 V							
Rated input frequency	50 Hz / 60 Hz							
Efficiency								
Max. efficiency	96.2%							
EU efficiency	96.1%							
BAT charged by PV / AC max. efficiency	95.3% / 93.9%							
Battery discharged efficiency	93.8%							

PROTECTION								
Models	3K	3.6K	4.6K	5K	6K	8K	9K(21A)	10K(21A)
Surge protection	Yes							
Output over current protection	Yes							
Insulation resistance monitoring	Yes							
Residual current detection	Yes							
Integrated PV switch	Yes							
DC reverse-polarity protection	Yes (PV only)							
Protection class / Over voltage category	I / II (PV and BAT), III (MAINS and BACKUP and GEN)							
Integrated AFCI 2.0	Optional							
Anti-islanding protection	Yes							

GENERAL DATA			
Dimensions (W × H × D)	335 × 560 × 253 mm		
Weight	23 kg	23.5 kg	23.8 kg
Inverter topology	Non-isolated (PV), Isolated (Battery)		
Self-consumption	< 40 W		
Operating temperature range	-25 ~ +60°C		
Relative humidity	0 - 100%		
Ingress protection	IP66		
Noise emission (typical)	< 40 dB(A)	< 65 dB(A)	
Cooling concept	Natural cooling	Intelligent redundant fan-cooling	
Max. operation altitude	3000 m		
Grid connection standard	C10/11, NRS 097-2-1, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, EN 50549-1, MEA, PEA, NBR 16149, NBR 16150, G98, G99, CEI 0-21, NTS 631 TypeA		
Safety / EMC standard	IEC/EN 62109-1/-2, EN 61000-6-2/-3		

FEATURES								
PV connection	MC4 connector							
Battery connection	Terminal Block							
AC connection	Terminal Block							
Display	7.0" LCD display & Bluetooth + APP							
Communication interface	Standard: WIFI+LAN+Bluetooth, CAN-BMS, CAN-Parallel×2, RS485-Meter, RS485, DRM, DI, DO×2; Optional: 4G							



Integrated Hybrid Ecosystem: Solis S6-EH1P-L-PLUS + Easyway UNIV5200 + GRID-EMS

Direct CAN-BMS communication with 51.2V LiFePO4 battery stacks (such as Easyway UNIV5200 5.22 kWh modules up to 16× in parallel), automatic generator control, 10ms UPS backup switching, and AI Time-of-Use optimisation via SolisCloud and The Charge Grid GEMS.

