solis

3-10K

SOLARATOR SERIES

Experience Uninterrupted Power with Solis Energy Storage Inverters

S6-EH1P(3-8)K-L-PLUS
S6-EH1P(9-10)K-L-PLUS(21A)

Single Phase | Low Voltage

- 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

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DATASHEET

Models	3K	3.6K	4.6K	5K	6K	8K	9K(21A)	10K(21A)
Input DC (PV side)								
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)								
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	13.7 A / 13.1 A	16.4 A / 15.7 A	20.9 A / 20 A	22.8 A / 21.8 A	27.3 A / 26.1 A	36.4 A / 34.8 A	40.9 A / 39.1 A	45.5 A / 43.5 A
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 W	14.3 W
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 ①	< 10 ms							
Rated output voltage	L/N/PE, 220 V / 230 V							
Rated frequency	50 Hz / 60 Hz							
Rated output current	13.7 A / 13.1 A	16.4 A / 15.7 A	20.9 A / 20 A	22.8 A / 21.8 A	27.3 A / 26.1 A	36.4 A / 34.8 A	40.9 A / 39.1 A	45.5 A / 43.5 A
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	13.7 A / 13.1 A	16.4 A / 15.7 A	20.9 A / 20 A	22.8 A / 21.8 A	27.3 A / 26.1 A	36.4 A / 34.8 A	40.9 A / 39.1 A	45.5 A / 43.5 A
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								
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	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							

① From On-Grid Mode to Off-Grid Mode: For a single inverter system, switchover time <10ms.
For a parallel system which consists of up to 6 inverters, switchover time <20ms.
If customer wishes to connect more than 6 inverters in parallel, please contact Solis Technical Team.