

8-12K

SOLARATOR SERIES

Experience Uninterrupted Power with Solis Energy Storage Inverters

S6-EH3P(8-12)K-LV-ND-H

Three Phase | High Voltage

- Supports up to 4 MPPTs, suitable for multi-orientation and occlusion, to improve power generation
- Supports PV input up to 160% of the inverter's rated DC power, maximising solar utilisation
- Supports up to 20A PV input current, compatible with future higher-power PV modules
- 160% 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
- Support three-phase unbalanced output, each phase supports output max. 40% rated inverter power
- Supports both DC and AC coupling—making it easy to expand PV, charge batteries, and power loads reliably, even in off-grid conditions
- Multiple methods of generator connection and auto control, enabling flexible local deployment
- Supports SG-Ready heat pump connectivity for smarter home energy applications
- Support max 6 units in parallel, expanding system capacity
- Smart Load management with prioritisation, 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
- Ingress protection IP66, adapting to harsh ambient conditions

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DATASHEET

Models	8K	10K	12K
Input DC (PV side)			
Recommended max. PV array size	16 kW	20 kW	24 kW
Max. usable PV input power	12.8 kW	16 kW	19.2 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 × 16 A	4 × 20 A
Max. current per DC input		16 A	20 A
Max. short circuit current		4 × 24 A	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 current		50 A	
Number of battery port / Number of BMS port		1 / 1	
Communication		CAN / RS485	
Output AC (Grid side)			
Rated output power	8 kW	10 kW	12 kW
Max. apparent output power	8 kVA	10 kVA	12 kVA
Rated grid voltage		3/(N)/PE, 133 V / 230 V	
Rated grid frequency		50 Hz / 60 Hz	
Rated grid output current	20.1 A	25.1 A	30.1 A
Power factor		> 0.99 (0.8 leading - 0.8 lagging)	
THDi		< 3%	
Input AC (Grid side)			
Max. input power	12 kW	15 kW	18 kW
Input voltage range		184 - 265 V	
Max. input current	30.1 A	37.7 A	45.2 A
Output AC (Back-up)			
Rated output power	8 kW	10 kW	12 kW
Max. apparent output power		1.6 times of rated power, 10 s	
Back-up switch time ①		< 10 ms	
Rated output voltage		3/(N)/PE, 133 V / 230 V	
Rated frequency		50 Hz / 60 Hz	
Rated output current	20.1 A	25.1 A	30.1 A
Max. AC passthrough current	30.1 A	37.7 A	45.2 A
THDv (@linear load)		< 3%	
Input AC (Generator side)			
Max. input power	8 kW	10 kW	12 kW
Rated input current	20.1 A	25.1 A	30.1 A
Rated input voltage		3/(N)/PE, 133 V / 230 V	
Rated input frequency		50 Hz / 60 Hz	
Efficiency			
Max. efficiency		96.70%	
EU efficiency		96.4%	
BAT charged by PV / AC max. efficiency		96.2% / 96.4%	
Battery discharged efficiency		96.4%	
Protection			
Surge protection		DC Type III / AC Type III	
Output over current protection		Yes	
Insulation resistance monitoring		Yes	
Residual current detection		Yes	
Integrated PV switch		Yes	
DC reverse-polarity protection		Yes	
Protection class / Over voltage category		I / II (PV and BAT), III (MAINS and BACKUP and GEN)	
Anti-islanding protection		Yes	
General Data			
Max. power per phase		40% rated power	
Dimensions (W × H × D)		563 × 546 × 235 mm	
Weight		35.2 kg	
Inverter topology		Non-isolated	
Self-consumption		< 25 W	
Operating temperature range		-25 ~ +60°C	
Relative humidity		0 - 100%	
Ingress protection		IP66	
Noise emission (typical)		< 65 dB(A)	
Cooling concept		Intelligent redundant fan-cooling	
Max. operation altitude		2000 m	
Grid connection standard		EN 50549-1/-10, VDE4105, REN342	
Safety / EMC standard		IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4	
Features			
PV connection		MC4 connector	
Battery connection		Lever terminal	
AC connection		OT terminal	
Display		LED indicator & Bluetooth + APP	
Communication interface		Standard: WIFI+LAN+Bluetooth, CAN-BMS, CAN-Parallel×2, RS485-Meter, RS485, DRM, DI, DO×3	

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.