

S6-EH1P(3.8-11.4)K-H-US
Solis Single Phase High Voltage
Energy Storage Inverters

Features:

- Up to 4 MPPTs and 16A of DC input current allows for PV array design flexibility
- Optimization, module-level monitoring, and rapid shutdown options available
- External RSD, EPO signal and BYPASS switch are available
- UL 9540 certified with multiple different battery brands (LG, BYD, Pylontech. ect)
- Bluetooth connection to mobile phone, make the setting and operation easier
- Automatic UPS switching and up to 180% 10s surge power back up overload capacity support industrial air conditioner
- Intelligent AC coupling scheme, easily upgrade existing grid-connected systems
- Whole-home backup, generator integration, and load shedding function with the new SolisHub
- Supports 1ph and 3ph flexible connection on both the Grid and Backup Port



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DATASHEET

Models	3.8K	5K	7.6K	9.9K	10K	11.4K
DC Input (PV)						
Max. input voltage				600 V		
Rated voltage				380 V		
Start-up voltage				80 V		
MPPT voltage range				80 - 520 V		
Max. input current per string				16 A		
Max. short circuit current per string				25.6 A		
Number of MPPTs / Number of strings per MPPT	2 / 1	3 / 1			4 / 1	
Energy Storage						
Battery type				Lithium-ion		
Battery voltage range				120 - 500 V		
Maximum charge / discharge current		25 A			50 A	
Battery communication				CAN / RS485		
Number of batteries per inverter				See Battery Compatibility Sheet		
AC Output (Grid)						
Rated output power	3800 W	5000 kW	7600 W	9990 W	10000 W	11400 W
Max. apparent output power	3800 VA	5000 kVA	7600 VA	9990 VA	10000 VA	11400 VA
Rated output voltage			240 V			
Rated frequency			60 Hz			
Rated output current	15.8 A	20.8 A	31.7 A	41.7 A	41.7 A	47.5 A
Max. output current	15.8 A	20.8 A	31.7 A	41.7 A	41.7 A	47.5 A
THDi				< 3%		
AC Input (Grid)						
Input voltage range			211 - 264 V			
Grid pass through power	15.8 A	20.8 A	31.7 A	41.7 A	41.7 A	47.5 A
Max. input current	23.8 A	31.2 A	47.6 A	62.6 A	62.6 A	71.3 A
Frequency range			58.8 - 61.2 Hz			
AC Output (Backup and Off-grid)						
Rated output power	3800 W	5000 kW	7600 W	9990 W	10000 W	11400 W
Max. apparent output power	6.8 kVA, 10 s	9 kVA, 10 s	13.7 kVA, 10 s	18 kVA, 10 s	18 kVA, 10 s	20.5 kVA, 10 s
Back-up switch time			< 10 ms			
Phase power			240 V Split-Phase			
Rated output voltage (L1-L2)			240 V			
AC output voltage range			211 - 264 V			
Rated grid frequency			60 Hz			
Frequency range			55 - 65 Hz			
Rated AC output current	15.8 A	20.8 A	31.7 A	41.7 A	41.7 A	47.5 A
Max. output overcurrent protection, 10 s	25.4 A	33.3 A	50.7 A	66.7 A	66.7 A	76 A
Max. allowable phase imbalance			100%			
Backup support configurations			Whole-home and dedicated loads			
Power factor			> 0.99 (0.8 leading - 0.8 lagging)			
THDv (@linear load)			< 3%			
Efficiency						
PV Max. efficiency	97.0%			97.6%		
PV CEC efficiency	96.5%			97.0%		
Battery charged by PV max. efficiency			98.5%			
Battery charged / discharged to AC max. efficiency			97.0%			
Protection						
Ground fault detection			Yes			
Residual (leakage) current detection			Yes			
Integrated AFCI			Yes			
DC reverse-polarity protection			Yes (PV only)			
Manual inverter bypass switch			Yes			
Rapid shutdown NEC 2017			Integrated SunSpec-certified Transmitter			
Compatible RSD receivers			See MLRSD Compatibility Sheet			
Protection class / Over voltage category			I / II			
General Data						
Dimensions (W × H × D)	19.21 × 28.35 × 8.66 in (490 × 720 × 220 mm)			22.05 × 29.53 × 8.66 in (560 × 750 × 220 mm)		
Weight	52.43 lbs (23.78 kgs)			71.74 lbs (32.54 kgs)		
Topology			Transformerless			
Self-consumption (night)			< 20 W			
Operating ambient temperature range			-13°F to 140°F (-25°C to 60°C)			
Ingress protection			TYPE 4X			
Noise emission (typical)			< 30 dB(A)			
Self-consumption (night)			< 20 W			
Cooling method			Natural cooling			
Mounting type			Wall Bracket			
Max. operation altitude			13,120 ft (4000 m)			
Compliance			UL1741SB, IEEE1547-2018, UL1699B, UL1998, FCCPart15ClassB, California Rule21, NEC 690.12-2020, CAN/CSA C22.2107.1-1, HECO Rule 14H, Luma Listed			
Generator support			Yes; up to 25 kW (with a Solis Power Hub)			
Features						
DC connection			1 in. knockouts for conduit (x2) on the side and bottom; Spring clamp terminals			
AC connection			1.5 in. knockouts for conduit (x3) on the side and bottom; Spring clamp terminals			
Interface			LED indicator & Bluetooth + APP			
Integrated revenue grade meter			Optional			
Monitoring platform			SolisCloud (modbus map and API sharing available upon request)			
Revenue grade meter			Integrated ANSI C12.20 option			
Communication			RS485, Optional: Cellular, Wi-Fi, LAN			