

## **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 shut-down 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 shading 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 (×2) on the side and bottom; Spring clamp terminals			
AC connection									1.5 in. knockouts for conduit (×3) 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			