

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

Models:

S6-EH1P3.8K-H-US / S6-EH1P5K-H-US

S6-EH1P6K-H-US / S6-EH1P7.6K-H-US /

S6-EH1P8K-H-US / S6-EH1P9.9K-H-US

S6-EH1P10K-H-US / S6-EH1P11.4K-H-US

Please consult the Ordering Guide for details on how to order the inverter with different accessories.



Models	3.8K	5K	6K	7.6K	8K	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	3.8 kW	5 kW	6 kW	7.6 kW	8 kW	9.99 kW	10 kW	11.4 kW
Max. apparent output power	3.8 kVA	5 kVA	6 kVA	7.6 kVA	8 kVA	9.99 kVA	10 kVA	11.4 kVA
Rated output voltage					240 V			
Rated frequency					60 Hz			
Rated output current	15.8 A	20.8 A	25 A	31.7 A	33.3 A	41.7 A	41.7 A	47.5 A
Max. output current	15.8 A	20.8 A	25 A	31.7 A	33.3 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	25 A	31.7 A	33.3 A	41.7 A	41.7 A	47.5 A
Max. input current	23.8 A	31.2 A	37.5 A	47.6 A	49.9 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	3.8 kW	5 kW	6 kW	7.6 kW	8 kW	9990 W	10 kW	11.4 kW
Max. apparent output power	6.8 kVA, 10 s	9 kVA, 10 s	10.8 kVA, 10 s	13.7 kVA, 10 s	14.4 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	25 A	31.7 A	33.3 A	41.7 A	41.7 A	47.5 A
Max. output overcurrent protection, 10 s	25.4 A	33.3 A	40 A	50.7 A	53.3 A	66.7 A	66.7 A	76 A
Max. allowable phase imbalance					100%			
Backup support configurations					Dedicated loads and whole-home			
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 kg)			71.74 lbs (32.54 kg)				
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; connected externally			
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)			
Communication					RS485. Optional: Cellular. Wi-Fi. I AN			