

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 shading function with the new SolisHub
- Supports 1ph and 3ph flexible connection on both the Grid and Backup Port

Models:

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

S6-EH1P7.6K-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.



DATASHEET

S6-EH1P(3.8-11.4)K-H-US

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		

Specification

Model	YL-HV384025	YL-HV384050
Electrical		
Battery Type	LiFePO4	
Nominal Voltage	384V	384V
Nominal Capacity	25Ah	50Ah
Nominal Energy	9.6kWh	19.2kWh
Max. Output Power	9.6kW	19.2kW
Recommended Charge Current	12.5A	25A
Max. Continuous Charge Current	25A	50A
Max. Continuous Discharge Current	25A	50A
Mechanical		
Net Weight	85kg	140kg
Dimension (W*D*H)	600*850*200mm	950*1350*200mm
Installation Way	Indoor Wall Mount or Floor Installation	
IP Rating	IP65	
Operation & Configurations		
Battery Level	Brand New Premium Grade A Battery Cells	
BMS Level	High Precision Intelligent BMS	
Alarm and Protection	Multiple Protections from Battery Cells to Battery Pack	
Operating Voltage	300.00~438.00V	
Operating Temperature Charging	0~55°C	
Operating Temperature Discharging	-20~60°C	
Monthly Self Discharge	≤2% @25°C	
Efficiency of Charge & Discharge	≥99.5% @0.2C	
Cycle Life	More than 6,000 Times*	
Communication	CAN/RS485	
Compatible Inverters	Growatt, Solis, Deye, Sol-Ark, SunSynk, Goodwe, Sofar, SMA, Megarevo, Afore, etc	
Parallel Capability	Support up to 15 PCS in Parallel	
	Expendable up to 144kWh	Expendable up to 288kWh
Monitoring & Commissioning	PC Terminal or WiFi Module Remote Monitoring (Optional)	
Warranty	5 to 10 Years	
Certifications & Safety Standards	CE, IEC62619, IEC/EN61000-3, IEC/EN61000-6, ROHS, UL1973, UN38.3, MSDS	

*: @0.2C, 80% DoD, 25°C

Upcoming Certification: UL1973 cULus (USA and Canadian Version)



High Voltage Batteries

PowerUp Series

Water-proof Wall Mounted 384VDC Battery

Contact Us



Find more



User Friendly

- 10kWh to 288kWh expendable
- Excellent inverter communication compatibility:
Growatt, Solis, Deye, Sol-Ark, SunSynk, Goodwe, Sofar, SMA, Megarevo, Afore, etc
- PC Monitoring and optional WiFi remote monitoring & commissioning
- Wall-mounted, Floor-standing
- High energy density with light-weight
- Full set of matched accessories supported

Track Records of Reliability

860 MWh

Over 860 MWh battery system global deployment

0%

0% complaint rate for battery cells

0.5%

< 0.5% complaint rate for BMS



Complied with IEC62619, EN/IEC61000-3, EN/IEC-61000-6, UL1973, RoHS, CE, MSDS, UN38.3

24 HOUR

5 to 10 years warranty with 24 hours response after-sales services

Premium High Configurations

6,000 cycles

More than 6,000 cycles

IC/BMS

High Precision IC, Intelligent BMS

10-15 years

10-15 years life span



Meeting residential, commercial & industrial standards

100%

100%DoD supported 98% efficiency

A

Guaranteed Brand-New Premium Quality Grade A Battery Cells

