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

Solis Residential Hybrid Storage Inverter

>> Models:

S6-EH1P3.8K-H-US S6-EH1P5K-H-US S6-EH1P7.6K-H-S-US S6-EH1P7.6K-H-L-US S6-EH1P10K-H-US S6-EH1P11.4K-H-US





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

- · APST (APS MLRSD Transmitter)
- RSS (Tigo MLRSD Transmitter)
- ENT (Enteligent MLRSD Transmitter)



Highly Flexible

- Can be used for both whole-home and dedicated loads backup systems
- Four MPPTs allows for versatile PV array design
- · Provides split-phase backup power
- UL 9540 certified with multiple battery brands to provide up to 80 kWh of storage capacity per inverter
- Multiple working modes to meet different use case scenarios
- California Rule 21 and HECO listed with the UL 1741 SB and UL 1741 PCS certifications

Efficient Performance

- Maximum PV input current up to 16A per string
- High DC:AC ratio of 1.6 for more PV power capacity
- Generates up to 50A/11.4kW of continuous backup power with just one inverter
- Transfer time is < 10ms for all backed up loads
- DC to DC battery charging for optimal use of PVgenerated energy

Intelligent Design

- SunSpec modbus certified with the latest SunSpec models
- Supports generate interconnection and allows the generator to function as the grid source if utility power is lost
- Capable of frequency-watt control for interoperability with other smart devices
- Offers all of the smart inverter functions detailed in IEEE 1547-2018
- Utilizes an energy management system that maximizes efficiency and offers multiple operating modes
- Solis app allows for remote system configuration and firmware upgrading

Safe and Reliable

- Reverse DC polarity protection and software-based AFCI detection
- NEC 2017 compliant with multiple integrated PLC transmitter options available
- Fanless design using convection cooling for lower failure rate and complexity
- Third-party tested and validated for product reliability

DATASHEET

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

Max. Injust violage Max. Injus viol	Models	3.8K-H	5K-H	7.6K-H-S	7.6K-H-L	10K-H	11.4K-H	
State violage State Stat	DC Input (PV)							
Side State State Sept Se	Max. input voltage			60	00 V			
Side State State Sept Se	Rated voltage			38	80 V			
### 1987-1985 1987-1997 19	0							
16A								
Max. shart charact current per string, without of sharings par MPPT 2/1 3/1 4/1 4/1								
State Stat								
Comparison Com		2/1			.0 A	4/1		
Limiture Comparison Limiture Comparison Limiture Comparison Limiture Comparison Limiture Comparison Limiture		2/1		D/ I		4/ 1		
23.8tmy voltage range				Lithio	ım ion			
Maximum changedischange current 25 A 50 A								
### See Battery Compatibility Sheet **C Output (Grid)** **C In (Grid)** **Durk Voltage range **C In (Grid)** **Durk Voltage range **C In (Grid)** **Durk Voltage range **C Output (Grid)** **Durk Voltage range **Durk Voltage range **C Output (Grid)** **Durk Voltage range **Dur	7 6 6							
See Battery Compatibility Sheet	~ ~ ~							
Content (Grid)								
SAMP SAMP TAN	·			See Battery Cor	npatibility Sheet			
Max. apparent output power 3.8 kWa								
Valed output/voltage 220V / 740V Valed output current 173 A / 158 A 227 A / 208 A 345 A / 317 A 345 A / 317 A 45.5 A / 417 A 51.8 A / 47.5 A HDI 436 A / 318 A 42.7 A / 208 A 345 A / 317 A 345 A / 317 A 45.5 A / 417 A 51.8 A / 47.5 A HDI 436 A 437 A / 208 A 345 A / 317 A 345 A / 317 A 45.5 A / 417 A 51.8 A / 47.5 A HDI 436 A 437 A / 208 A 345 A / 317 A 345 A / 317 A 45.5 A / 417 A 51.8 A / 47.5 A HDI 436 A 437 A / 208 A 34.1 A / 512 A 51.8 A / 47.5 A 45.5 A / 417 A 51.8 A / 47.5 A HDI 436 A 437 A / 208 A 34.1 A / 512 A 34.8 A / 31.7 A 45.5 A / 41.7 A 51.8 A / 47.5 A Valid Country London 438 A 54.0 A / 208 A 34.1 A / 51.2 A 51.8 A / 47.5 A 68.2 A / 62.8 A 17.7 A / 71.3 A Valid Country London 38.3 A / 30 A								
State of Incorporate		3.8 kVA	5 kVA			10 kVA	11.4 kVA	
17.3 A 15.8 A 22.7 A 20.8 A 34.5 A 31.7 A 34.5 A 31.7 A 45.5 A 41.7 A 51.8 A 47.5 A	Rated output voltage			220 V	/ 240 V			
Max. output current 17.3 \(\) 17.5 \(\) 17.5 \(\) 18.6 \(\) 27.7 \(\) 20.8 \(\) 34.5 \(\) 34.7 \(\) 34.5 \(\) 34.7 \(\) 34.5 \(\) 47.5 \(\) 47.5 \(\) 47.5 \(\) 48.6 \(\) 10.6 \(\) 18.6 \(\) 47.5 \(\) 47.5 \(\) 18.6 \(\) 47.5 \(\) 47.5 \(\) 18.6 \(\) 47.5 \(\) 47.5 \(\) 48.6 \(\) 18.6 \(\) 47.6 \(\) 47.6 \(\) 48.6 \(\) 18.6 \(\) 47.6 \(\) 47.6 \(\) 47.6 \(\) 48.6 \(\) 18.6 \(\) 47.6 \(\) 47.6 \(\) 48.6 \(\) 18.6 \(\) 47.6 \(\) 48.6 \(\) 47.6 \(\) 48.6 \(\	Rated frequency			60) Hz			
Comput Grid	Rated output current	17.3 A / 15.8 A	22.7 A / 20.8 A	34.5 A / 31.7 A	34.5 A / 31.7 A	45.5 A / 41.7 A	51.8 A / 47.5 A	
Comput Continue Comput Continue Comput Continue Cont	Max. output current	17.3 A / 15.8 A	22.7 A / 20.8 A	34.5 A / 31.7 A	34.5 A / 31.7 A	45.5 A / 41.7 A	51.8 A / 47.5 A	
March Marc	rhdi			<	3%			
1916-7421 71.13 As 1916 74.17 1916 71.14 71.13 As 1916 74.17 71.14 71.14 As 1916 74.16 71.14 71.14 71.14 As 1916 74.16 71.14 7	AC Input (Grid)							
Mak. input.current				193.6-242\	//211-264 V			
Testuancy range		25 9 Δ / 23 8 Δ	341Δ/312Δ			68 2 A / 62 6 A	77 7 Δ / 71 3 Δ	
No.		23.3717 23.07	J 1.1 N / J1.2 A			00.2 N J 02.0 A	11.11/11.3A	
State of upty prover State State State To 6 kW To 6 kW To 6 kW To 6 kW 10 kW 11.4 kW				JJ.J-00.5 F	IL / JJ UITIL			
Max. apparent output power Sackup switch time Sackup switch Sackup switch time Sack		2.0.144	E 1.147	7.01.14	7.6 1.44	10 1.00	11 4 1.\\/	
Sack-up which time								
Phase power 220 V / 240 V Split Phase 220 V / 240 V 240		6.1 kVA, 10 sec	8 kVA, 10 sec			16 kVA, 10 sec	18.2 kVA, 10 sec	
Stated upput voltage (L1-L2/(L1/L2-N) 193.6-242 V / 211-26 V 193.6-242 V / 211-26 V / 211-26 V 193.6-242 V / 211-26								
193.6.247 V / 211-264 V 21								
Sand frequency Find	Rated output voltage (L1-L2)/(L1/L2-N)	220 V / 240 V						
Frequency range	AC output voltage range	193.6-242 V / 211-264 V						
Name of Acoust current 173 A / 15.8 A 22.7 A / 20.8 A 34.5 A / 3.1.7 A 34.5 A / 3.1.7 A 34.5 A / 4.1.7 A 51.8 A / 47.5 A	Rated grid frequency	60 Hz						
Max. output overcurrent protection, 10 sec 77.74/25.4	Frequency range							
Max. output overcurrent protection, 10 sec 77.74/25.4	Rated AC output current	17.3 A / 15.8 A	22.7 A / 20.8 A	34.5 A / 31.7 A	34.5 A / 31.7 A	45.5 A / 41.7 A	51.8 A / 47.5 A	
Max. allowable phase imbalance 3								
Backup support configurations Power factor P		,	· · · · · · · · · · · · · · · · · · ·			,	,	
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Ifficiency Yex Asc. efficiency Yex Asc. efficiency Yes Cefficiency 97.2% Ast. Charged by PV Max. efficiency 97.2% Ast. Charged by PV Max. efficiency 97.0% Protection Yes Residual (leakage) current detection Yes Teverse-polarity protection Yes (Ponly) Agold Shutdow NEC 2017 Integrated Sunspec-certified Transmitter Compatible RSD Receivers See MLRSD Compatibility Sheet Protection class/Over voltage category Forection also (NeW H*D) Protection 19.2*25.5*9 in (488*647*228.5 mm) Propology Fransformerless Jimensions (W*H*D) 19.2*25.5*9 in (488*647*228.5 mm) Propology Fransformerless Jimensions (W*H*D) Propology Transformerless Departure range 13.1*F to 140*F (-25*C to 66*C) REMA 4X (IP66) Cooling method Max. operation altitude 13,120 ft (4000 m) Lompliance UL1741SB, UL1741SA, IEEE 1547-2018, UL1699B, PCC Part15 ClassB, California Rule 21, Heco Rule 14H, NEC 690,12-2020, CAN/CSA C22.2107.1-1 Senerator support Features Oc connection 1 in. knockouts for conduit (x2) on the side and bottom; Spring clamp terminals AC connection Solis Cloud (modbus map and AP) sharing available upon request)								
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BAT charged by PV Max. efficiency 97.0% Portection Protection Press Residual (leakage) current detection Press Residual (leakage) current detection Press Protection Press Press Protection Press Protection Protection Protection Protection class/Over voltage category Protection class/Over voltage category Protection class/Over voltage category Protection class/Over voltage category Protection class Protection Protect	*							
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Monitoring platform SolisCloud (modbus map and API sharing available upon request)								
DC40E O. 2	Monitoring platform Communication	Soliscioud (modbus map and API snaring available upon request) RS485, Optional: Cellular, Wi-Fi						