

S6-EH2P(9.6-16)K03-SV-YD-L-US

Solis Single Phase Low Voltage Energy Storage Inverters

Features:

- Generator-compatible to extend backup duration during grid power outage
- Multiple inverters can operate together to form a microgrid
- Supports dual backup ports for intelligent control of critical and non-critical loads
- 10 seconds of 200% overload capability
- Automatic switchover time is $< 4\text{ms}$, providing seamless transitions from grid to backup
- Supports a maximum input current of 20A, making it ideal for all high-power PV modules of any brand
- Ensures excellent power supply stability, keeping the load unaffected by a weak grid or generator supply fluctuations
- The battery's DC side can handle a maximum charge/discharge current of up to 290A, allowing it to store more surplus energy generated by PV systems

Models:

S6-EH2P9.6K03-SV-YD-L-US

S6-EH2P11.4K03-SV-YD-L-US

S6-EH2P12K03-SV-YD-L-US

S6-EH2P14K03-SV-YD-L-US

S6-EH2P16K03-SV-YD-L-US



DATASHEET

S6-EH2P(9.6-16)K03-SV-YD-L-US

Models	9.6K	11.4K	12K	14K	16K
Input DC (PV side)					
Max. input voltage			550 V		
Rated voltage			380 V		
Start-up voltage			100 V		
MPPT voltage range			100-450 V		
Max. input current per MPPT			40 A		
Max. short circuit current per MPPT			50 A		
Number of MPPTs / Number of strings per MPPT			3 / 2		
Battery					
Battery type			Li-ion / Lead-acid		
Battery voltage range			40 - 60 V		
Max. charge / discharge current	200 A	237.5 A	250 A	290 A	
Communication			CAN / RS485		
Number of batteries per inverter			See Battery Compatibility Sheet		
Output AC (Grid side)					
Rated output power	9.6 kW	11.4 kW	12 kW	14 kW	16 kW
Max. apparent output power	9.6 kVA	11.4 kVA	12 kVA	14 kVA	16 kVA
Rated output voltage			240 V		
Rated grid frequency			60 Hz		
Rated grid output current	40 A	47.5 A	50 A	58.3 A	66.7 A
Max. output current	40 A	47.5 A	50 A	58.3 A	66.7 A
THDi			< 3%		
Input AC (Grid side)					
Input voltage range			211 - 264 V		
Max. input current			200 A		
Frequency range			58.8 - 61.2 Hz		
Output AC (Back-up)					
Rated output power	9.6 kW	11.4 kW	12 kW	14 kW	16 kW
Max. apparent output power			2 times of rated power, 10 s		
Back-up switch time			< 4 ms		
Phase power			L1/L2/N(PE), 120 V / 240 V (split phase)		
Rated output voltage (L1-L2)			240 V		
AC output voltage range			211 - 264 V		
Rated frequency			60 Hz		
Frequency range			55 - 65 Hz		
Rated output current	40 A	47.5 A	50 A	58.3 A	66.7 A
Max. output over current protection, 10 sec	87 A	104 A	109 A	127 A	145 A
Max. continuous AC passthrough			200 A		
Max. allowable phase imbalance			50%		
Backup support configurations			Dedicated loads and whole-home		
Power factor			> 0.99 (0.8 leading - 0.8 lagging)		
THDv (@linear load)			< 3%		
Input Generator					
Max. input power			24 kW		
Max. input current			100 A		
Rated input frequency			60 Hz		
Efficiency					
Max. efficiency			TBD		
CEC efficiency			TBD		
Battery charged by PV max. efficiency			95.0%		
Battery charged / discharged to AC max. efficiency			94.3% / 93.5%		
Protection					
Ground fault monitoring			Yes		
Integrated AFCI			Yes		
DC reverse-polarity protection			Yes (PV only)		
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)		21.6 × 34.6 × 11.4 in (550 × 880 × 290 mm)			
Weight		TBD			
Topology		Transformerless			
Operating ambient temperature range		-13°F to 140°F (-25°C to 60°C)			
Ingress protection		TYPE 4X			
Self-consumption (night)		< 30 W			
Noise emission (typical)		<65 dB(A)			
Cooling concept		Intelligent fan-cooling			
Mounting type		Wall Bracket			
Max. operation altitude		13120 ft (4000 m)			
Compliance	UL1741SB, IEEE1547-2018, UL1699B, UL1998, FCCPart15ClassB, California Rule21, NEC 690.12-2020, CAN/CSA C22.2107.1-1				
Features					
DC connection		Terminal Block (PV port) / Terminal Block (BAT port)			
AC connection		Terminal Block			
Interface		7.0" LCD display & Bluetooth + APP			
Monitoring platform		SolisCloud (modbus map and API sharing available upon request)			
Communication		RS485, Optional: Cellular, Wi-Fi, LAN			