

S6-EH1P(12-16)K03-NV-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 <4ms, 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-EH1P12K03-NV-YD-L-US

S6-EH1P14K03-NV-YD-L-US

S6-EH1P16K03-NV-YD-L-US



DATASHEET

S6-EH1P(12-16)K03-NV-YD-L-US

Models	12K	14K	16K
Input DC (PV side)			
Max. input voltage		550 V	
Rated voltage		380 V	
Start-up voltage		100 V	
MPPT voltage range		80-520 V	
Max. input current		40 A / 40 A / 40 A	
Max. short circuit current		50 A / 50 A / 50 A	
MPPT number/Max. input strings number		3/6	
Battery			
Battery type		Li-ion / Lead-acid	
Battery voltage range		40 - 60 V	
Max. charge / discharge current	250 A		290 A
Battery switch		Yes (400 A)	
Communication		CAN/RS485	
Number of batteries per inverter		See Battery Compatibility Sheet	
Output AC (Grid side)			
Rated output power	12 kW	14 kW	16 kW
Max. apparent output power	12 kVA	14 kVA	16 kVA
Rated output voltage		240 V	
Rated grid frequency		60 Hz	
Rated grid output current	50 A	58.3 A	66.7 A
Max. output current	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	12 kW	14 kW	16 kW
Max. apparent output power		2 times of rated power, 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 frequency		60 Hz	
Frequency range		55-65 Hz	
Rated output current	50 A	58.3 A	66.7 A
Max. output over current protection, 10 sec	109 A	127 A	145 A
Backup support configurations		Dedicated loads and whole-home	
Power factor		>0.99 (0.8 leading - 0.8 lagging)	
THDv (@linear load)		<3%	
Max. number of parallel		10	
Input Generator			
Max. input power		24 kW	
Max. input current		100 A	
Rated input frequency		60 Hz	
Efficiency			
Max. efficiency		97.6%	
CEC efficiency		97.2%	
Battery charged by PV Max. efficiency		98.5%	
Battery charged/discharged to AC Max. efficiency		97.0%	
Protection			
Ground fault monitoring		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)		18.3*30*11.1 in (464*763*282 mm)	
Weight		106.9 lbs (48.5 kg)	
Topology		Transformerless	
Operating ambient temperature range		-13 °F to 140 °F (-25°C to 60°C)	
Ingress protection		TYPE 4X	
Self-consumption (night)		<20 W	
Cooling concept		Intelligent redundant 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	Spring clamp terminals (PV port) / Spring clamp terminals (BAT port)		
AC connection	2.5 in. knockouts for conduit (x3) on the side and bottom; Spring clamp terminals		
Interface	LED + Bluetooth + APP		
Integrated Revenue Grade Meter	Optional		
MLRSD&Optimizer list	TBD		
Monitoring Platform	SolisCloud (modbus map and API sharing available upon request)		
Communication	RS485, Optional: Cellular, Wi-Fi, LAN		