

9.6-16K

SOLARATOR SERIES

Experience Uninterrupted Power with Solis Energy Storage Inverters

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

Split Phase | Low Voltage



- Supports PV input up to 160% of the inverter's rated DC power, maximising solar utilisation
- Support max 20A PV input current, compatible with future higher-power PV modules
- 300% overload for 1s in off-grid mode, ensuring stable startup of motors and air conditioner
- Seamless on/off-grid switching in under 10ms, guaranteeing an uninterrupted power supply
- Supports generator input across a wide range (20%–100% of rated power), reducing investment costs
- Supports both DC and AC coupling—making it easy to expand PV, charge batteries, and power loads reliably, even in off-grid conditions
- Battery reserve function across multiple scenarios, ensuring reliable backup power
- Smart Load management with prioritisation, extending backup time for critical loads
- Smart port enables multiple energy source inputs, including grid-tied inverters, diesel generators, and wind turbines
- Support max 6 units in parallel, for expanding system capacity
- Integrated Arc Fault Protection and Rapid Shutdown Transmitter, ensuring system safety

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DATASHEET

Models	9.6K	10K	11.4K	12K	14K	16K
Input DC (PV side)						
Recommended max. PV power	15.36 kW	16 kW	18.24 kW	19.2 kW	22.4 kW	25.6 kW
Max. input voltage				550 V		
Rated voltage				380 V		
Start-up voltage				100 V		
MPPT voltage range				100-450 V		
Full load MPPT voltage range	160-450 V					186-450 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 module models	SolisStor-5/10kWh-L-WM-20-SE; SolisStor-5/10/16kWh-L-WM-20; SolisStor-5/10/16kWh-L-WM-66; SolisStor-(5-40)kWh-L-ST-66					
Number of battery modules				1 ~ 8		
Battery voltage range				40 - 60 V		
Battery type				Li-ion / Lead-acid		
Max. charge / discharge current	200 A	208 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	10 kW	11.4 kW	12 kW	14 kW	16 kW
Max. apparent output power	9.6 kVA	10 kVA	11.4 kVA	12 kVA	14 kVA	16 kVA
Rated output voltage				220 V / 240 V		
Rated grid frequency				50 Hz / 60 Hz		
Rated grid output current	43.6 A / 40 A	45.5 A / 41.7 A	51.8 A / 47.5 A	54.5 A / 50 A	63.6 A / 58.3 A	72.7 A / 66.7 A
Max. output current	43.6 A / 40 A	45.5 A / 41.7 A	51.8 A / 47.5 A	54.5 A / 50 A	63.6 A / 58.3 A	72.7 A / 66.7 A
THDi	< 3%					
Input AC (Grid side)						
Input voltage range	193.6 - 242 V / 211 - 264 V					
Max. input current	200 A					
Frequency range	59.5 - 60.5 Hz / 58.8 - 61.2 Hz					
Output AC (Back-up and Off-grid)						
Rated output power	9.6 kW	10 kW	11.4 kW	12 kW	14 kW	16 kW
Max. apparent output power	2 time of rated power, 10 s; 3 times of rated power, 1 s					
Back-up switch time	< 10 ms					
Phase power	L1/L2/N(PE), 120 V / 240 V (split phase)					
Rated output voltage (L1-L2)	220 V / 240 V					
AC output voltage range	193.6-242 V / 211-264 V					
Rated grid frequency	50 Hz / 60 Hz					
Rated output current	43.6 A / 40 A	45.5 A / 41.7 A	51.8 A / 47.5 A	54.5 A / 50 A	63.6 A / 58.3 A	72.7 A / 66.7 A
Max. output over current protection, 10 sec	87.2 A / 80 A	91 A / 83.4 A	103.6 A / 95 A	109 A / 100 A	127.2 A / 116.6 A	145.4 A / 133.4 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	30 kW					
Max. input current	125 A					
Rated input frequency	50 Hz / 60 Hz					
Efficiency						
Max. efficiency	96.02%					
CEC efficiency	95.45%					
Battery charged by PV max. efficiency	96.21%					
Battery charged / discharged to AC max. efficiency	94.16%/94.22%					
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)	534 × 930 × 297 mm					
Weight	65.8 kg					
Topology	Transformerless					
Operating ambient temperature range	-25°C to 60°C					
Ingress protection	TYPE 4X (IP66)					
Self-consumption (night)	< 35 W					
Noise emission (typical)	<65 dB(A)					
Cooling concept	Intelligent fan-cooling					
Relative humidity range	0 - 100%					
Mounting type	Wall Bracket					
Max. operation altitude	13120 ft (4000 m)					
Grid Certifications	IEEE 1547-2018, IEEE1547.1-2020, CA Rule 21, SRD 2.0					
Safety Certifications	UL 1741 PVRSS, UL 1699B, UL 1998 (US), UL 1741, UL 1741 SB, CSA C22.2107.1-1					
Emissions	FCC Part 15 Class B					
Features						
DC connection	Terminal Block (PV port) / Terminal Block (BAT port)					
AC connection	Terminal Block					
Interface	7.0" LCD display & Bluetooth + APP					
Revenue grade meter	Optional					
Monitoring platform	SolisCloud (modbus map and API sharing available upon request)					
Communication	RS485, Optional: Cellular, Wi-Fi, LAN					