



solis

20th
ANNIVERSARY



100-150K

SOLARATOR SERIES

Operates Seamlessly with Generator: Experience Uninterrupted Power, Even in Areas with Grid Instability

S6-EH3P(100-150)K10-NV-YD-H-US

Three Phase | High Voltage

12 Unique Advantages

- ★ Supports PV input up to 250kW, maximising solar utilisation
- ★ Supports a maximum string input current of 21A, ensuring compatibility with high-power PV modules
- ★ Compatible with 100–314Ah battery modules, reducing overall system costs
- ★ Supports fast battery charging with a maximum charging current of 200A
- ★ Two independent battery ports for flexible configurations and easy capacity expansion
- ★ Delivers 160% overload for 200ms in off-grid mode, ensuring stable startup of heavy loads
- ★ Offers flexible control for weak grid and genset-hybrid scenarios, reducing investment costs
- ★ SolisCloud: Smart remote control, AI optimisation, and instant troubleshooting - all in one platform
- ★ Integrates PV and storage for demand management and anti-reverse flow functions
- ★ Provides dynamic reactive power compensation to improve grid power factor and reduce reactive power charges
- ★ Utility bypass function allows direct grid supply to backup loads
- ★ Patented cooling technology ensures reliable operation even under high-temperature conditions

6 Leading Advantages

- Supports both DC and AC coupling, for flexible retrofits and system expansions
- Ensures reliable backup power across diverse scenarios through battery reserve management
- Extends supply time for critical loads with intelligent load prioritization
- Offers a versatile three-in-one interface for seamless integration of on-grid PV, wind power, and diesel generators
- Achieves on- and off-grid transitions in less than 10ms, ensuring an uninterrupted power supply
- Supports multi-unit parallel operation up to 1.5MW (Solis STS cabinet recommended for systems over 6 units)

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DATASHEET

Models	100K	125K	150K
Input DC (PV side)			
Recommended max. PV array size	200 kW	250 kW	250 kW
Max. input voltage		1000 V	
Rated voltage		600 V	
Start-up voltage		180 V	
MPPT voltage range		150 - 950 V	
Max. input current		10 × 42 A	
Max. short circuit current		10 × 65 A	
MPPT number / Max. input strings number		10 / 20	
Battery			
Battery type		Li-ion	
Battery voltage range		300 - 950 V	
Max. charge / discharge current		100 A × 2	
Number of battery ports		2	
Communication		CAN / RS485	
Output AC (Grid side)			
Rated output power	100 kW	125 kW	150 kW
Max. apparent output power	100 kVA	125 kVA	150 kVA
Rated grid voltage		3/(N)/PE, 480 V	
Rated grid frequency		60 Hz	
Rated grid output current	120.3 A	150.4 A	180.4 A
Max. output current	120.3 A	150.4 A	180.4 A
THDi		< 3%	
Input AC (Grid side)			
Input voltage range		384-552 V	
Max. input current		250 A	
Frequency range		55-65 Hz	
Input Generator			
Max. input power	100 kW	125 kW	150 kW
Max. input current	120.3 A	150.4 A	180.4 A
Rated input voltage		3/(N)/PE, 480 V	
Rated input frequency		60 Hz	
Output AC (Back-up)			
Rated output power	100 kW	125 kW	150 kW
Max. apparent output power	1.2 times of rated power, 10 mins; 1.4 times of rated power, 100 s; 1.6 times of rated power, 10 s; 2 times of rated power, 200 ms		1.2 times of rated power, 100 s 1.4 times of rated power, 10 s 1.6 times of rated power, 200 ms
Back-up switch time		< 10 ms	
Phase Power	33.33 kW	40 kW	50 kW
Rated output voltage		3/(N)/PE, 480 V	
Rated frequency		60 Hz	
Frequency range		55 - 65 Hz	
Rated AC output current	120.3 A	150.4 A	180.4 A
Max. output current	120.3 A	150.4 A	180.4 A
Max. allowable phase imbalance		100%	
Power factor		> 0.99 (0.8 leading - 0.8 lagging)	
THDv (@linear load)		< 2%	
Efficiency			
Max. efficiency		97.6%	
CEC efficiency		97.2%	
BAT charged by PV max. efficiency		98.5%	
BAT charged / discharged to AC max. efficiency		97.0%	
Protection			
Ground fault detection		Yes	
Residual (leakage) current detection		Yes	
Integrated AFCI 2.0		Yes	
DC reverse-polarity protection		Yes	
Rapid Shutdown NEC 2017		Integrated SunSpec-certified Transmitter	
Compatible RSD Receivers		See MLRSD Compatibility Sheet	
Protection class / Over voltage category		I / DC II, AC III	
General Data			
Dimensions (W × H × D)	50.51 × 33.94 × 18.43 in (1283 × 862 × 468 mm)		
Weight	374.79 lbs (170 kgs)		
Topology	Transformerless		
Operating ambient temperature range	-13°F to 140°F (-25°C to 60°C)		
Relative humidity	0 - 100%		
Ingress protection	TYPE 4X (IP66)		
Cooling concept	Intelligent fan-cooling		
Max. operation altitude	3000 m		
Grid connection standard	IEEE 1547-2018, Rule 21 (CA), Rule 14 (HI), ISONE		
Safety Standard Compliance ^①	UL1741SB, IEEE1547-2018, UL1699B, UL1998, FCCPart15ClassB, California Rule21, HECO Rule 14H, NEC 690.12-2020, CAN/CSA C22.2107.1-1, Hawaiian Electric Co. SRD-V2.0		
Features			
PV connection	MC4 terminals		
Battery connection	Spring clamp terminals		
AC connection	Screw type terminal block		
Interface	7.0" LCD display & Bluetooth + APP		
Monitoring platform	SolisCloud (modbus map and API sharing available upon request)		
Revenue grade meter	Integrated ANSI C12.20 option		
Communication	CAN, RS485-115200, Ethernet, Optional: Wi-Fi, Cellular, LAN		

^① This column only shows the planned certification standards. Please confirm the specific time of obtaining the standards with the local team.