



solis

20th
ANNIVERSARY

NEW

30-60K

SOLARATOR SERIES

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

S6-EH3P(30-60)K-NV-YD-H-US(21A)

Three Phase | High Voltage



10 Unique Advantages

- ★ Supports PV input up to 100kW, 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 168A
- ★ Two independent battery ports for flexible configurations and easy capacity expansion
- ★ Delivers 160% overload for 2s 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

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 600kW (Solis STS cabinet recommended for systems over 6 units)

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DATASHEET

Models	30K03	40K04	50K04	60K04
Input DC (PV side)				
Max. usable PV input power	60 kW	80 kW	100 kW	100 kW
Max. input voltage			1000 V	
Rated voltage			600 V	
Start-up voltage			180 V	
MPPT voltage range			150 - 850 V	
Max. input current	3 × 42 A		4 × 42 A	
Max. short circuit current	3 × 65 A		4 × 65 A	
MPPT number / Max. input strings number	3 / 6		4 / 8	
Max input power per MPPT			25 kW (600 V × 42 A)	
Battery				
Battery type			Li-ion	
Battery voltage range			150 - 800 V	
Max. charge / discharge power	33 kW	44 kW	55 kW	60 kW
Max. charge / discharge current		80 A × 2 ^①		84 A × 2 ^①
Number of battery ports			2	
Max. charge / discharge power of each input	33 kW		35 kW	
Communication			CAN / RS485	
Output AC (Grid side)				
Rated output power	30 kW	40 kW	50 kW	60 kW
Max. apparent output power	30 kVA	40 kVA	50 kVA	60 kVA
Rated grid voltage			3/(N)/PE, 480 V	
Rated grid frequency			60 Hz	
Rated grid output current	36.1 A	48.1 A	60.1 A	72.2 A
Max. output current	36.1 A	48.1 A	60.1 A	72.2 A
Power factor			> 0.99 (0.8 leading - 0.8 lagging)	
THDi			< 3%	
Input AC (Grid side)				
Max. AC passthrough current	72.2 A	96.2 A	120.2 A	144.4 A
Rated input voltage			3/(N)/PE, 480 V	
Rated input frequency			60 Hz	
Input Generator				
Max. input power	30 kW	40 kW	50 kW	60 kW
Max. input current	36.1 A	48.1 A	60.1 A	72.2 A
Rated input voltage			3/(N)/PE, 480 V	
Rated input frequency			60 Hz	
Output AC (Back-up)				
Rated output power	30 kW	40 kW	50 kW	60 kW
Max. apparent output power			1.6 times of rated power with 2 s	
Back-up switch time			< 10 ms	
Rated output voltage			3/(N)/PE, 480 V	
Rated frequency			60 Hz	
Rated output current	36.1 A	48.1 A	60.1 A	72.2 A
Max. imbalance power per phase			33% rated power	
THDv (@linear load)			< 2%	
Efficiency				
Max. efficiency			97.9%	
CEC efficiency			97.4%	
MPPT efficiency			99.9%	
Protection				
Ground fault detection			Yes	
Residual (leakage) current detection			Yes	
Integrated AFCI			Yes	
DC reverse-polarity protection			Yes	
PV DC 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)			22.05 × 41.34 × 13.64 in (560 × 1050 × 346.5 mm)	
Weight			195.77 lbs (88.8 kg)	
Topology			Transformerless	
Self-consumption (night)			< 35 W	
Operating ambient temperature range			-13°F to 140°F (-25°C to 60°C)	
Relative humidity			0 - 100%	
Ingress protection			TYPE 4X	
Cooling concept			Intelligent fan-cooling	
Max. operation altitude			8,202 ft (2500 m)	
Compliance			UL1741SB, IEEE1547-2018, UL1699B, UL1998, FCCPart15 lassB, California Rule21, Hawaii Rule 14H, NEC 690.12-2020, CAN/CSA C22.2107.1-1	
Features				
DC connection			Spring clamp terminals	
Grid AC connection			Screw type terminal block	
Back-up AC connection			Spring clamp terminals	
Battery DC connection			Spring clamp terminals	
Generator AC connection			Spring clamp terminals	
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 Supporting parallel 168A input (60K); Supporting parallel 160A input (30-50K).