



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)				
Recommended max. PV array size	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. current per DC input			42 A	
Max. short circuit current	3 × 65 A			4 × 65 A
MPPT number / Max. input strings number	3 / 6			4 / 8
Battery				
Battery type			Li-ion	
Battery voltage range			150 - 800 V	
Max. charge / discharge current		80 A × 2		84 A × 2
Number of battery port / Number of BMS port			2	
Max. charge / discharge current of each port		80 A		84 A
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, 277 V / 480 V	
Rated grid frequency			60 Hz	
Rated grid 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. input power	60 kW	80 kW	100 kW	120 kW
Input voltage range			384 - 552 V	
Max. input current	72.2 A	96.2 A	120.2 A	144.4 A
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 ^①			< 10 ms	
Rated output voltage			3/(N)/PE, 277 V / 480 V	
Rated frequency			60 Hz	
Rated output current	36.1 A	48.1 A	60.1 A	72.2 A
Max. AC passthrough current			72.2A	
THDv (@linear load)			< 2%	
Input AC (Generator side)				
Max. input power	30 kW	40 kW	50 kW	60 kW
Rated input current	36.1 A	48.1 A	60.1 A	72.2 A
Rated input voltage			3/(N)/PE, 277 V / 480 V	
Rated input frequency			60 Hz	
Efficiency				
Max. efficiency	97.30%	97.24%	97.38%	97.49%
CEC efficiency	96.62%	96.84%	97.23%	97.27%
BAT charged by PV / AC max. efficiency			98.6% / 97.8%	
Battery discharged efficiency			97.8%	
Protection				
Surge protection			DC Type II / AC Type II	
Output over current protection			Yes	
Insulation resistance monitoring			Yes	
Residual current detection			Yes	
Integrated PV switch			Yes	
DC reverse-polarity protection			Yes	
Protection class / Over voltage category			I / DC II, AC III	
Integrated AFCI 2.0			Yes	
Anti-islanding protection			Yes	
Rapid shutdown NEC 2017			Integrated SunSpec-certified Transmitter	
Compatible RSD receivers			See MLRSD Compatibility Sheet	
General Data				
Max. power per phase (grid & back-up)			33% rated power	
Dimensions (W × H × D)		22.05 × 41.34 × 13.64 in (560 × 1050 × 346.5 mm)		
Weight			195.77 lbs (88.8 kg)	
Inverter topology			Transformerless	
Self-consumption			< 35 W	
Operating temperature range			-13°F to 140°F (-25°C to 60°C)	
Relative humidity			0 - 100%	
Ingress protection			TYPE 4X	
Cooling concept			Intelligent redundant fan-cooling	
Max. operation altitude			9842,52 ft (3000 m)	
Compliance ^②			UL1741SB, IEEE1547-2018, UL1699B, UL1998, FCCPart15 lassB, California Rule21, Hawaii Rule 14H, NEC 690.12-2020, CAN/CSA C22.2107.1-1	
Features				
PV connection			MC4 connector	
Battery connection			Spring clamp terminals	
AC connection			Screw type terminal block	
Display			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 interface			Standard: WIFI+LAN+Bluetooth, CAN-BMS×2, CAN-Parallel×2, RS485-Meter, RS485, DRM, DI×3, DO×3; Optional: 4G	

① From On-Grid Mode to Off-Grid Mode: For a single inverter system, switchover time <10ms.
For a parallel system which consists of up to 6 inverters, switchover time <20ms.
If customer wishes to connect more than 6 inverters in parallel, please contact Solis Technical Team.

② This column only shows the planned certification standards.
Please confirm the specific time of obtaining the standards with the local team.