

80-125K

SOLARATOR SERIES

Works with a Wide Range of Batteries: Experience Uninterrupted Power, Even in Areas with Grid Instability

S6-EH3P(80-125)K10-NV-YD-H

Three Phase | High Voltage



12 Unique Advantages

- ★ Supports up to 2x rated PV input, maximizing solar energy utilization
- ★ 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
- ★ AI integration and VPP readiness enable dynamic tariff optimization, minimizing electricity expenses and unlocking additional revenue
- ★ 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 1.25MW (Solis STS cabinet recommended for systems over 6 units)

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DATASHEET

Models	80K	99.9K	100K	125K
Input DC (PV side)				
Recommended max. PV array size	160 kW	200 kW	200 kW	250 kW
Max. usable PV input power	160 kW	200 kW	200 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. current per DC input			42 A	
Max. short circuit current			10 × 60 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 / 100 A × 2	
Number of battery port / Number of BMS port			2	
Max. charge / discharge current of each port			100 A	
Communication			CAN / RS485	
Output AC (Grid side)				
Rated output power	80 kW	99.9 kW	100 kW	125 kW
Max. apparent output power	80 kVA	99.9 kVA	100 kVA	125 kVA
Rated grid voltage			3/N/PE, 220 V / 380 V, 230 V / 400 V	
Rated grid frequency			50 Hz / 60 Hz	
Rated grid output current	121.6 A / 115.5 A	151.8 A / 144.2 A	151.9 A / 144.3 A	189.9 A / 180.4 A
Power factor			> 0.99 (0.8 leading - 0.8 lagging)	
THDi			< 3%	
Input AC (Grid side)				
Max. input power	160 kW	164.5 kW / 173.2 kW	164.5 kW / 173.2 kW	164.5 kW / 173.2 kW
Input voltage range			304 - 460 V	
Max. input current			250 A	
Output AC (Back-up)				
Rated output power	80 kW	99.9 kW	100 kW	125 kW
Max. apparent output power		1.6 times of rated power, 10 s; 2 times of rated power, 200 ms		1.4 times of rated power, 10 s; 1.6 times of rated power, 200 ms
Back-up switch time ^①			< 10 ms	
Rated output voltage			3/N/PE, 220 V / 380 V, 230 V / 400 V	
Rated frequency			50 Hz / 60 Hz	
Rated output current	121.6 A / 115.5 A	151.8 A / 144.2 A	151.9 A / 144.3 A	189.9 A / 180.4 A
Max. AC passthrough current	121.6 A / 115.5 A	151.8 A / 144.2 A	151.9 A / 144.3 A	189.9 A / 180.4 A
THDv (@linear load)			< 3%	
Input AC (Generator side)				
Max. input power	80 kW	99.9 kW	100 kW	125 kW
Rated input current	121.6 A / 115.5 A	151.8 A / 144.2 A	151.9 A / 144.3 A	189.9 A / 180.4 A
Rated input voltage			3/N/PE, 220 V / 380 V, 230 V / 400 V	
Rated input frequency			50 Hz / 60 Hz	
Efficiency				
Max. efficiency			97.5%	
EU efficiency	96.9%	97.1%	97.1%	97.2%
BAT charged by PV / AC max. efficiency			98.2%/97.0%	
Battery discharged efficiency			97.0%	
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			Optional	
Anti-islanding protection			Yes	
General Data				
Max. power per phase (grid & back-up)			33% rated power	
Dimensions (W × H × D)			1174 × 814 × 400 mm	
Weight			170 kg	
Inverter topology			Transformerless	
Self-consumption			< 45 W	
Operating temperature range			-25 ~ +60°C	
Relative humidity			0 - 100%	
Ingress protection			IP66	
Cooling concept			Intelligent redundant fan-cooling	
Max. operation altitude			3000 m	
Grid connection standard ^②	G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1&2/EN 50549-10, VDE 0126/UTE C 15/VFR:2019, NTS 631/UNE 217001, CEI 0-21, C10/11, NRS 097-2-1, TOR, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA, PORTARIA N° 140, PORTARIA N° 515			
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011			
Features				
PV connection			MC4 connector	
Battery connection			Terminal connector	
AC connection			Terminal block	
Display			7.0" LCD display & Bluetooth + APP	
Communication interface	Standard: WIFI+LAN+Bluetooth, CAN-BMS×2, CAN-Parallel×2, LAN, RS485-Meter, RS485, DRM, DI×5, DO×4; 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.