solis

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)

UK

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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			
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	Non-isolated			
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 Nº 140, PORTARIA Nº 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.