75K

SOLARATOR SERIES

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

S6-EH3P75K10-LV-YD-H-US

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 200% 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 750kW (external ATS recommended for systems over 6 units)

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DATASHEET

Models	75K
Input DC (PV side)	
Recommended max. PV array size	150 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 × 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 port / Number of BMS port	2
Max. charge / discharge current of each port	100 A
Communication	CAN
Output AC (Grid side)	
Rated output power	70 kW / 75 kW
Max. apparent output power	70 kVA / 75 kVA
Rated grid voltage	3/(N)/PE, 120 V / 208 V, 139 V / 240 V
Rated grid frequency	60 Hz
Rated grid output current	194.3 A / 180.4 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)
THDi	< 3%
Input AC (Grid side)	
Max. input power	90 kW / 103.9 kW
Input voltage range	166 - 276 V
Max. input current	250 A
Output AC (Back-up)	
Rated output power	70 kW / 75 kW
Max. apparent output power	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, 120 V / 208 V, 139 V / 240 V
Rated frequency	60 Hz
Rated output current	194.3 A / 180.4 A
Max. AC passthrough current	194.3 A / 180.4 A
THDv (@linear load)	< 3%
Input AC (Generator side)	
Max. input power	70 kW / 75 kW
Rated input current	194.3 A / 180.4 A
Rated input voltage	3/(N)/PE, 120 V / 208 V, 139 V / 240 V
Rated input frequency	60 Hz
Efficiency	
Max. efficiency	96.0%
CEC efficiency	95.2%
BAT charged by PV / AC max. efficiency	98.5% / 95.6%
Battery discharged efficiency	95.6%
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)	50.47 × 33.94 × 18.43 in (1282 × 862 × 468 mm)
Weight	374.79 lbs (170 kg)
Inverter topology	Non-isolated
Self-consumption	< 45 W
Operating temperature range	-13°F to 140°F (-25°C to 60°C)
Relative humidity	0 - 100%
Ingress protection	TYPE 4X (IP66)
Cooling concept	Intelligent redundant fan-cooling
Max. operation altitude	3000 m
Compliance ②	UL Std. No.1741-Third Edition, UL1741 Supplement B and California Rule21 Phase 1&2&3, UL 1699B & CSA C22.2 No.107.1-16&IEEE 1547-2018, IEEE 1547a-2020 and IEEE 1547.1-2020. UL 1998, FCCPart15ClassB, HECO Rule 14H, NEC 690.12-2025, Hawaiian Electric Co.SRD-V2.0.
Features	
PV connection	MC4 connector
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)
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.