

S6-EH3P(29.9-50)K-H

Solis Three Phase High Voltage Energy Storage Inverters

Features:

- 4 integrated MPPTs and capacity for 8 strings, supporting up to 20A each.
- The maximum charging/discharging current is 70A per port, supporting 2 ports for a total of 140A, with independent controls for each battery port.
- Supports a maximum of up to 96kW usable PV power.
- Enables peak shaving control in both "self-use" and "generator" modes.
- Backup port allows for 160% overload for short durations of up to 2 seconds.
- Generator connectivity includes multiple input methods and automatic generator On/Off control.
- Allows parallel operation of up to 6 units for both on-grid and off-grid applications.
- Can function as a grid-tied inverter without a battery connection while connected to the grid.
- Compatible with a wide voltage range to accommodate various types of batteries.

Models:

S6-EH3P30K-H-LV

S6-EH3P29.9K-H / S6-EH3P30K-H

S6-EH3P40K-H / S6-EH3P50K-H

140A
/70+70A
Maximum current

200%
PV

160%
Overload



DATASHEET

S6-EH3P(29.9-50)K-H

Models	30K-LV	29.9K	30K	40K	50K
Input DC (PV side)					
Recommended max PV array size	60 kW	59.8 kW	60 kW	80 kW	100 kW
Max. usable PV input power	60 kW	59.8 kW	60 kW	80 kW	96 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*40 A		4*40 A	
Max. short circuit current		3*60 A		4*60 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 power	33 kW	32.1 kW	33 kW	44 kW	55 kW
Max. charge / discharge current			70 A*2 ⁽¹⁾		
No. of battery inputs			2		
Max. charge / discharge power of each input	33 kW	32.1 kW	33 kW	40 kW	40 kW
Communication			CAN/RS485		
Output AC (Grid side)					
Rated output power	30 kW	29.9 kW	30 kW	40 kW	50 kW
Max. apparent output power	30 kVA	29.9 kVA	30 kVA	40 kVA	50 kVA
Rated grid voltage	3/N/PE, 127 V / 220 V 3/N/PE, 133 V / 230 V			3/N/PE, 220 V / 380 V 3/N/PE, 230 V / 400 V	
Rated grid frequency			50 Hz / 60 Hz		
Rated grid output current	78.7 A / 75.3 A	45.4 A / 43.2 A	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A
Max. output current	78.7 A / 75.3 A	45.4 A / 43.2 A	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A
Power factor			>0.99 (0.8 leading - 0.8 lagging)		
THDi			< 3%		
Input AC (Grid side)					
Max. AC passthrough current	152 A / 152 A	90.8 A / 86.4 A	91.2 A / 86.6 A	121.6 A / 115.4 A	152 A / 144.4 A
Rated input voltage	3/N/PE, 127 V / 220 V 3/N/PE, 133 V / 230 V			3/N/PE, 220 V / 380 V 3/N/PE, 230 V / 400 V	
Rated input frequency			50 Hz / 60 Hz		
Input Generator					
Max. input power	30 kW	29.9 kW	30 kW	40 kW	50 kW
Rated input current	78.7 A / 75.3 A	45.4 A / 43.2 A	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A
Rated input voltage	3/N/PE, 127 V / 220 V 3/N/PE, 133 V / 230 V			3/N/PE, 220 V / 380 V 3/N/PE, 230 V / 400 V	
Rated input frequency			50 Hz / 60 Hz		
Output AC (Back-up)					
Rated output power	30 kW	29.9 kW	30 kW	40 kW	50 kW
Max. apparent output power			1.6 times of rated power, 2 s		
Back-up switch time			< 10 ms		
Rated output voltage	3/N/PE, 127 V / 220 V 3/N/PE, 133 V / 230 V			3/N/PE, 220 V / 380 V 3/N/PE, 230 V / 400 V	
Rated frequency			50 Hz / 60 Hz		
Rated output current	78.7 A / 75.3 A	45.4 A / 43.2 A	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A
THDv (@linear load)			< 2%		
Efficiency					
Max. efficiency			97.8%		
EU efficiency			97.4%		
BAT charged by PV Max. efficiency			98.5%		
BAT charged/discharged to AC Max. efficiency			97.5%		
Protection					
Anti-islanding protection			Yes		
Output over current protection			Yes		
Short circuit protection			Yes		
Integrated DC switch			Optional		
DC reverse-polarity protection			Yes		
Surge protection			DC Type II / AC Type II		
Integrated AFCI (DC arc-fault circuit protection)			Yes ⁽²⁾		
General Data					
Dimensions (W*H*D)			530*880*290 mm		
Weight			73 kg		
Topology			Non-isolated		
Self-consumption (night)			<25 W		
Operating ambient temperature range			-25 ~ +60°C		
Relative humidity			0-95%		
Ingress protection			IP66		
Cooling concept			Intelligent redundant fan-cooling		
Max. operation altitude			4000 m		
Grid connection standard	G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, RD 1699 / RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA				
Safety/EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-3				
Features					
PV connection			MC4 Quick connection plug		
Battery connection			Terminal connector		
AC connection			Terminal Block		
Display			LED + Bluetooth + APP		
Communication			CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN		

(1) Supporting parallel 140A input. (2) Activation required.