

S6-EH3P(29.9-50)K-H

Solis Three Phase High Voltage Energy Storage Inverters

Features:

- 4 MPPTs, 8 strings at 20A, and up to 96kW usable PV input
- 140A/70A+70A max charge/discharge on two independently controlled ports
- Supports 1.6 times rated output for 2 seconds on the backup port
- Supports parallel operation of up to 6 units for on and off-grid use
- Operates as a grid-tied inverter without batteries when on-grid
- Multi-input generator connectivity with automatic on/off control
- Supports peak shaving control in both "self-use" and "generator" mode

Models:

S6-EH3P30K-H-LV

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

S6-EH3P40K-H / S6-EH3P50K-H



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	Transformerless				
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	G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1/EN 50549-10, VDE 0126 / UTE C 15/VFR:2019, NTS 631/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 61000-6-2/-4				
Features					
PV connection	MC4 Quick connection plug				
Battery connection	Terminal connector				
AC connection	Terminal Block				
Display	LCD + Bluetooth + APP				
Communication	CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN				

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