

S6-EH3P(29.9-50)K-H

Solis Three Phase High Voltage Energy Storage Inverters

Features:

- 2 seconds of 160% overload capability
- Supports a maximum input current of 20A, making it ideal for all high-power PV modules of any brand
- Real-time battery monitoring, remote upgrade, and battery healing function to prolong battery life
- Supports peak shaving features in "self-use" and "generator" modes
- Supports Unbalanced and Half-Wave Loads on both the Grid and Backup Port
- A wide battery voltage range accommodates the prevalent high-voltage lithium batteries found in the market
- Battery charging/discharging current 140A/70A+70A, suitable for 280Ah cell standard 0.5C application condition
- Supports 200% DC/AC ratio and makes full use of PV charging, providing a long backup

Models:

S6-EH3P29.9K-H

S6-EH3P30K-H

S6-EH3P40K-H

S6-EH3P50K-H



DATASHEET

S6-EH3P(29.9-50)K-H

Models	29.9K	30K	40K	50K
Input DC (PV side)				
Recommended max. PV array size	59.8 kW	60 kW	80 kW	100 kW
Max. usable PV input power	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	40 A / 40 A / 40 A			4 × 40 A
Max. short circuit current	60 A / 60 A / 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	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	32.1 kW	33 kW	35 kW	35 kW
Communication			CAN / RS485	
Output AC (Grid side)				
Rated output power	29.9 kW	30 kW	40 kW	50 kW
Max. apparent output power	29.9 kVA	30 kVA	40 kVA	50 kVA
Rated grid voltage		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	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	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	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, 220 V / 380 V; 3/N/PE, 230 V / 400 V		
Rated input frequency		50 Hz / 60 Hz		
Input Generator				
Max. input power	29.9 kW	30 kW	40 kW	50 kW
Rated input current	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, 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	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, 220 V / 380 V; 3/N/PE, 230 V / 400 V		
Rated frequency		50 Hz / 60 Hz		
Rated output current	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		Yes		
DC reverse-polarity protection		Yes		
Surge protection		DC Type II / AC Type II		
Integrated AFCI 2.0		Optional		
General Data				
Dimensions (W × H × D)		530 × 880 × 290 mm		
Weight		73 kg		
Topology		Transformerless		
Self-consumption (night)		< 35 W		
Operating ambient temperature range		-25 ~ +60°C		
Relative humidity		0 - 95%		
Ingress protection		IP66		
Cooling concept		Intelligent 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,PORTARIA Nº 140, DE 21 DE MARÇO DE 2022		
Safety / EMC standard		IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011		
Features				
PV connection		MC4 Quick connection plug		
Battery connection		Terminal connector		
AC connection		Terminal Block		
Display		7.0" LCD display & Bluetooth + APP		
Communication		CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN		

(1) Supporting parallel 140A input.