

## 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
<b>Input DC (PV side)</b>				
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
<b>Battery</b>				
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 <sup>(1)</sup>			
No. of battery inputs	2			
Max. charge / discharge power of each input	32.1 kW	33 kW	35 kW	35 kW
Communication	CAN / RS485			
<b>Output AC (Grid side)</b>				
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%			
<b>Input AC (Grid side)</b>				
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			
<b>Input Generator</b>				
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			
<b>Output AC (Back-up)</b>				
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%			
<b>Efficiency</b>				
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%			
<b>Protection</b>				
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			
<b>General Data</b>				
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 N° 140, DE 21 DE MARÇO DE 2022			
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011			
<b>Features</b>				
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.