

# Solis Solarator Series

Experience Uninterrupted Power with Solis Energy Storage Inverters

## S6-EH3P(29.9-50)K-H

Three Phase | High Voltage | Energy Storage Inverters



### Smart Energy Management

- AI intelligently manages charging and discharging based on TOU (Time-of-Use) tariffs
- Adapt to third party VPP platform, frequency service provider

### High Performance

- Supports 100% three-phase unbalanced output
- 200% PV input capacity to maximize solar energy utilization
- Max.160% overload capability in off-grid mode
- Charging and discharging currents up to 140A
- Switching time  $\leq 10\text{ms}$

### Flexible & Scalable

- Compatible with mainstream lithium batteries
- Support Solis C&I battery solution
- Easily expand system capacity using parallel connections and AC coupling

### Simple & Fast Configuration

- 7-inch LCD screen for an intuitive user experience
- Bluetooth app support for quick and easy setup



# 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>	
Number of battery ports			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, 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, 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, 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, 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/MFR: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			
<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.