



Energy Storage Inverters

S6-EH3P(30-50)K-H

Three Phase | High Voltage

6 Leading Features

- Supports flexible PV connection through DC and AC coupling for retrofitting and expanding
- Supports battery reserve function in multiple scenarios
- Smart Load Prioritizing – Extending support for critical loads
- SmartLoad/GEN/INV port - Flexible connection of multiple energy sources such as Grid-tied inverter, diesel generator, wind turbines, etc.
- Seamless on grid/off grid switching time <10ms
- Support max 10 pcs in parallel mode, >6 pcs recommend Solis power distribution cabinet

8 Unique Features

- Usable PV power up to 200% inverter rated power, to improve the utilization of PV generation
- Supports max 20A PV input current, perfect match for high power PV modules
- Compatible with 100-280Ah battery modules
- Supports faster charging with battery current up to 140A
- Powerful backup overload capability – 160% overload
- Supports a wide power range of generator connections from 10kVA to 50kVA
- Supports 2 independent battery connections for flexible configuration
- 7-inch large screen uses U.S.-made ZEITLER industrial-grade components

UK

t: +44 113 328 0870 (sales)
+44 1514 536515 (service)

e: europesales@solisinverters.com
ukservice@solisinverters.com

w: solisinverters.com/uk



DATASHEET

S6-EH3P(30-50)K-H

Models	30K	40K	50K
Input DC (PV side)			
Recommended max. PV array size	60 kW	80 kW	100 kW
Max. usable PV input power	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	33 kW	44 kW	55 kW
Max. charge / discharge current		70 A × 2 ⁽¹⁾	
Number of battery ports		2	
Max. charge / discharge power of each input	33 kW	35 kW	35 kW
Communication		CAN / RS485	
Output AC (Grid side)			
Rated output power	30 kW	40 kW	50 kW
Max. apparent output power	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	45.6 A / 43.3 A	60.8 A / 57.7 A	76 A / 72.2 A
Max. output current	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	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	
Input Generator			
Max. input power	30 kW	40 kW	50 kW
Rated input current	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	
Output AC (Back-up)			
Rated output power	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	45.6 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/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	
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.