



**5-18K**

# SOLARATOR SERIES

Experience Uninterrupted Power with Solis Energy Storage Inverters

## S6-EH3P(5-18)K02-NV-YD-L

Three Phase | Low Voltage

- Supports PV input up to 160% of the inverter's rated DC power, maximising solar utilisation
- Supports up to 21A PV input current, compatible with future higher-power PV modules
- 200% overload for 10s in off-grid mode, ensuring stable startup of motors, water pumps and air conditioners
- Seamless on/off-grid switching in under 10ms, guaranteeing an uninterrupted power supply
- Support three-phase unbalanced output, each phase supports output max. 50% rated inverter power
- Supports both DC and AC coupling—making it easy to expand PV, charge batteries, and power loads reliably, even in off-grid conditions
- Multiple methods of generator connection and auto control, enabling flexible local deployment
- Support max 6 units in parallel, expanding system capacity
- Smart Load management with prioritisation, extending backup time for critical loads
- Customizable battery backup level for uninterrupted power
- Supports PV-only off-grid operation, reducing upfront costs
- SolisCloud: Smart remote control, AI optimisation, and instant troubleshooting — all in one platform
- 7-inch industrial-grade LCD screen, providing a larger, user-friendly interface for local operation
- Ingress protection IP66, for operation in harsh conditions

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# DATASHEET

Models	5K	6K	8K	10K	12K	15K	18K
<b>Input DC (PV side)</b>							
Recommended max. PV array size	10 kW	12 kW	16 kW	20 kW	24 kW	30 kW	36 kW
Max. usable PV input power	9 kW	9.6 kW	12.8 kW	16 kW	19.2 kW	24 kW	28.8 kW
Max. input voltage	1000 V						
Rated voltage	550 V						
Start-up voltage	160 V						
MPPT voltage range	200 - 850 V						
Max. input current	20 A / 20 A	20 A / 20 A		20 A / 40 A		40 A / 40 A	42 A / 42 A
Max. current per DC input	20 A						
Max. short circuit current	30 A / 30 A	30 A / 30 A		30 A / 50 A		50 A / 50 A	50 A / 50 A
MPPT number / Max. input strings number	2 / 2			2 / 3		2 / 4	
<b>Battery</b>							
Battery type	Li-ion / Lead-acid						
Battery voltage range	40 - 60 V						
Max. charge / discharge current	125 A	150 A	180 A	220 A	250 A	290 A	320 A
Number of battery port / Number of BMS port	2 / 1						
Max. charge / discharge current of each port	150 A						175 A
Communication	CAN / RS485						
<b>Output AC (Grid side)</b>							
Rated output power	5 kW	6 kW	8 kW	10 kW	12 kW	15 kW	18 kW
Max. apparent output power	5 kVA	6 kVA	8 kVA	10 kVA	12 kVA	15 kVA	18 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	7.6 A / 7.3 A	9.1 A / 8.7 A	12.2 A / 11.5 A	15.2 A / 14.4 A	18.2 A / 17.3 A	22.8 A / 21.7 A	27.3 A / 26.1 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)						
THDi	< 3%						
<b>Input AC (Grid side)</b>							
Max. input power	7.5 kW	9 kW	12 kW	15 kW	18 kW	22.5 kW	27 kW
Input voltage range	323 - 437 V / 340 - 460 V						
Max. input current	11.4 A / 10.9 A	13.7 A / 13.1 A	18.3 A / 17.3 A	22.8 A / 21.7 A	27.3 A / 26.0 A	34.2 A / 32.5 A	41 A / 39.2 A
<b>Output AC (Back-up)</b>							
Rated output power	5 kW	6 kW	8 kW	10 kW	12 kW	15 kW	18 kW
Max. apparent output power	2 times of rated power, 10 s						
Back-up switch time <sup>①</sup>	< 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	7.6 A / 7.3 A	9.1 A / 8.7 A	12.2 A / 11.5 A	15.2 A / 14.4 A	18.2 A / 17.3 A	22.8 A / 21.7 A	27.3 A / 26.1 A
Max. AC passthrough current	50 A						
THDv (@linear load)	< 3%						
<b>Input AC (Generator side)</b>							
Max. input power	5 kW	6 kW	8 kW	10 kW	12 kW	15 kW	18 kW
Rated input current	7.6 A / 7.3 A	9.1 A / 8.7 A	12.2 A / 11.5 A	15.2 A / 14.4 A	18.2 A / 17.3 A	22.8 A / 21.7 A	27.3 A / 26.1 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>Efficiency</b>							
Max. efficiency	97.5%						
EU efficiency	97.0%						
BAT charged by PV / AC max. efficiency	95.0% / 94.4%						
Battery discharged efficiency	94.5%						
<b>Protection</b>							
Surge protection	DC Type II / AC Type II (Optional)						
Output over current protection	Yes						
Insulation resistance monitoring	Yes						
Residual current detection	Yes						
Integrated PV switch	Yes						
DC reverse-polarity protection	Yes						
Protection class / Over voltage category	I / II (PV and BAT), III (MAINS and BACKUP and GEN)						
Integrated AFCI 2.0	Optional						
Anti-islanding protection	Yes						
<b>General Data</b>							
Max. power per phase	50% rated power						40% rated power
Dimensions (W × H × D)	430 × 660 × 305 mm						
Weight	42 kg						
Inverter topology	Non-isolated (PV), Isolated (Battery)						
Self-consumption	< 30 W						
Operating temperature range	-25 ~ +60°C						
Relative humidity	0 - 100%						
Ingress protection	IP66						
Noise emission (typical)	< 65 dB(A)						
Cooling concept	Intelligent fan-cooling						
Max. operation altitude	4000 m						
Grid connection standard	EN 50549-1/-10, VDE 4105&VDE 0124, NRS 097-2-1, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, SriLanka, EN 50438L, Vietnam, MEA, PEA, CEI 0-21 IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4						
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4						
<b>Features</b>							
PV connection	MC4 Quick connection plug						
Battery connection	Screw terminal						
AC connection	Screw terminal						
Display	7.0" LCD display & Bluetooth + APP						
Communication interface	Standard: WIFI+LAN+Bluetooth, CAN-BMS, CAN-Parallel×2, RS485-Meter, RS485, DRM, DI, DO×4; Optional: 2G/3G/4G						

① From On-Grid Mode to Off-Grid Mode: For a single inverter system, switchover time <10ms.  
 For a parallel system which consists of up to 6 inverters, switchover time <20ms.  
 If customer wishes to connect more than 6 inverters in parallel, please contact Solis Technical Team.