

15-20K

SOLARATOR SERIES

Operates Seamlessly with Generator: Experience Uninterrupted Power, Even in Areas with Grid Instability

S6-EH3P(15-20)K-H

Three Phase | High Voltage

- Supports up to 4 MPPTs, suitable for multi-orientation and occlusion, to improve power generation
- Supports PV input up to 160% of the inverter's rated DC power, maximising solar utilisation
- Supports up to 20A PV input current, compatible with future higher-power PV modules
- 160% 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. 40% 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, for 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, adapting to harsh ambient conditions

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DATASHEET

Models	15K	20K
Input DC (PV side)		
Recommended max. PV array size	30 kW	40 kW
Max. usable PV input power	24 kW	32 kW
Max. input voltage	1000 V	
Rated voltage	600 V	
Start-up voltage	160 V	
MPPT voltage range	200 - 850 V	
Max. input current	4 × 20 A	
Max. current per DC input	20 A	
Max. short circuit current	4 × 30 A	
MPPT number / Max. input strings number	4 / 4	
Battery		
Battery type	Li-ion	
Battery voltage range	120 - 800 V	
Max. charge / discharge current	50 A	
Number of battery port / Number of BMS port	1 / 1	
Communication	CAN / RS485	
Output AC (Grid side)		
Rated output power	15 kW	20 kW
Max. apparent output power	15 kVA	20 kVA
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V	
Rated grid frequency	50 Hz	
Rated grid output current	22.8 A / 21.7 A	30.4 A / 28.9 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)	
THDi	< 3%	
Input AC (Grid side)		
Max. input power	22.5 kW	30 kW
Input voltage range	304 - 437 V / 320 - 460 V	
Max. input current	34.2 A / 32.5 A	45.6 A / 43.3 A
Output AC (Back-up)		
Rated output power	15 kW	20 kW
Max. apparent output power	1.6 time of rated power, 10 s	
Back-up switch time ①	< 10 ms	
Rated output voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V	
Rated frequency	50 Hz	
Rated output current	22.8 A / 21.7 A	30.4 A / 28.9 A
Max. AC passthrough current	34.2 A / 32.5 A	45.6 A / 43.3 A
THDv (@linear load)	< 3%	
Input AC (Generator side)		
Max. input power	15 kW	20 kW
Rated input current	22.8 A / 21.7 A	30.4 A / 28.9 A
Rated input voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V	
Rated input frequency	50 Hz	
Efficiency		
Max. efficiency	97.7%	
EU efficiency	97.5%	
BAT charged by PV / AC max. efficiency	98.5% / 97.2%	
Battery discharged efficiency	97.2%	
Protection		
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)	
Anti-islanding protection	Yes	
General Data		
Max. power per phase	40% rated power	
Dimensions (W × H × D)	563 × 546 × 250 mm	
Weight	35.2 kg	
Inverter topology	Non-isolated	
Self-consumption	< 25 W	
Operating temperature range	-25 ~ +60°C	
Relative humidity	0 - 100%	
Ingress protection	IP66	
Noise emission (typical)	< 65 dB(A)	
Cooling concept	Intelligent redundant fan-cooling	
Max. operation altitude	2000 m	
Grid connection standard	EN 50549-1/-10, VDE4105, CEI 0-21, CEI 0-16, NC-RFG TypeB, NRS 097-2-1, LTU-1, G99, PEA	
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4	
Features		
PV connection	MC4 connector	
Battery connection	Lever terminal	
AC connection	OT 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×3	

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.