



solis

20th
ANNIVERSARY

12-18K

SOLARATOR SERIES

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

S6-EH1P(12-18)K03-NV-YD-L

Single Phase | Low Voltage



- 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
- 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
- More battery options, compatible with any battery (between 40V-60V)
- Supports existing PV grid-tied power connection for export control and off-grid use
- Multiple methods of generator connection and auto control, enabling flexible local deployment
- Support max 6 units in parallel, expanding system capacity
- Smart Load management, 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 touchscreen, providing a larger, user-friendly interface for local operation
- Ingress protection IP66, for operation in harsh conditions

MALAYSIA

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DATASHEET

Models	12K	14K	16K	18K
Input DC (PV side)				
Recommended max. PV array size	24 kW	28 kW	32 kW	36 kW
Max. usable PV input power	19.2 kW	22.4 kW	25.6 kW	28.8 kW
Max. input voltage	550 V			
Rated voltage	380 V			
Start-up voltage	100 V			
MPPT voltage range	80 - 520 V			
Max. input current	40 A / 40 A / 40 A			42 A / 42 A / 42 A
Max. short circuit current	50 A / 50 A / 50 A			
MPPT number / Max. input strings number	3 / 6			
Battery				
Battery type	Li-ion / Lead-acid			
Battery voltage range	40 - 60 V			
Max. charge / discharge current	250 A	290 A	290 A	320 A
Communication	CAN / RS485			
Output AC (Grid side)				
Rated output power	12 kW	14 kW	16 kW	18 kW
Operation phase	L/N/PE			
Rated grid voltage	220 V / 230 V			
Rated grid frequency	50 Hz / 60 Hz			
Rated grid output current	54.5 A / 52.2 A	63.6 A / 60.9 A	72.7 A / 69.6 A	81.8 A / 78.2 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)			
THDi	< 3%			
Input AC (Grid side)				
Input voltage range	187 - 253 V			
Max. input current	81.8 A / 78.3 A	95.5 A / 91.3 A	109.1 A / 104.3 A	122.7 A / 117.4 A
Frequency range	45 - 55 Hz / 55 - 65 Hz			
Output AC (Back-up)				
Rated output power	12 kW	14 kW	16 kW	18 kW
Max. apparent output power	2 times of rated power, 10 s			
Back-up switch time	< 10 ms			
Rated output voltage	L/N/PE, 220 V / 230 V			
Rated frequency	50 Hz / 60 Hz			
Rated output current	54.5 A / 52.2 A	63.6 A / 60.9 A	72.7 A / 69.6 A	81.8 A / 78.2 A
THDv (@linear load)	< 3%			
Input Generator				
Max. input power	12 kW	14 kW	16 kW	18 kW
Max. input current	54.5 A / 52.2 A	63.6 A / 60.9 A	72.7 A / 69.6 A	81.8 A / 78.2 A
Rated input frequency	50 Hz / 60 Hz			
Efficiency				
Max. efficiency	97.6%			
EU efficiency	97.0%			
BAT charged by PV max. efficiency	> 94.9%			
BAT charged / discharged to AC max. efficiency	> 94.33% / 93.51%			
Protection				
Surge protection	Yes			
DC reverse-polarity protection	Yes (PV only)			
Ground fault monitoring	Yes			
Integrated AFC	Optional			
Protection class / Over voltage category	I / II (PV and BAT), III (MAINS and BACKUP and GEN)			
General Data				
Dimensions (W × H × D)	459 × 845 × 313 mm			
Weight	55.5 kg			
Topology	Transformerless			
Operating ambient 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	NRS 097-2-1, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, EN50549-1			
Safety / EMC standard	IEC/EN 62109-1/-2, EN 61000-6-2/-3			
Features				
DC connection	MC4 plug (PV port) / Terminal Block (BAT port)			
AC connection	Terminal Block			
Display	7.0" LCD display & Bluetooth + APP			
Communication	RS485, Optional: Cellular, Wi-Fi, LAN			