

**12-18K**

# SOLARATOR SERIES

Operates Seamlessly with Generator: 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

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# DATASHEET

Models	12K	14K	16K	18K
<b>Input DC (PV side)</b>				
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			
<b>Battery</b>				
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			
<b>Output AC (Grid side)</b>				
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			
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%			
<b>Input AC (Grid side)</b>				
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			
<b>Output AC (Back-up)</b>				
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			
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%			
<b>Input Generator</b>				
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			
<b>Efficiency</b>				
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%			
<b>Protection</b>				
Surge protection	Yes			
DC reverse-polarity protection	Yes (PV only)			
Ground fault monitoring	Yes			
Integrated AFCI	Optional			
Protection class / Over voltage category	I / II (PV and BAT), III (MAINS and BACKUP and GEN)			
<b>General Data</b>				
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			
<b>Features</b>				
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			