

## S6-EH1P(12-16)K03-NV-YD-L

# Solis Single Phase Low Voltage Energy Storage Inverters

### Features:

- Generator-compatible to extend backup duration during grid power outage
- Multiple inverters can operate together to form a microgrid
- Supports dual backup ports for intelligent control of critical and non-critical loads
- 10 seconds of 200% overload capability
- Automatic switchover time is <math><4\text{ms}</math>, providing seamless transitions from grid to backup
- Supports a maximum input current of 20A, making it ideal for all high-power PV modules of any brand
- Ensures excellent power supply stability, keeping the load unaffected by a weak grid or generator supply fluctuations
- The battery's DC side can handle a maximum charge/discharge current of up to 290A, allowing it to store more surplus energy generated by PV systems

### Models:

S6-EH1P12K03-NV-YD-L

S6-EH1P14K03-NV-YD-L

S6-EH1P16K03-NV-YD-L



**DATASHEET**
**S6-EH1P(12-16)K03-NV-YD-L**

Models	12K	14K	16K
<b>Input DC (PV side)</b>			
Recommended max. PV array size	24 kW	28 kW	32 kW
Max. usable PV input power	19.2 kW	22.4 kW	22.4 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		
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
Communication	CAN / RS485		
<b>Output AC (Grid side)</b>			
Rated output power	12 kW	14 kW	16 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
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
Frequency range	45 - 55 Hz / 55 - 65 Hz		
<b>Output AC (Back-up)</b>			
Rated output power	12 kW	14 kW	16 kW
Max. apparent output power	2 times of rated power, 10 s		
Back-up switch time	< 4 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
THDv (@linear load)	< 3%		
<b>Input Generator</b>			
Max. input power	12 kW	14 kW	16 kW
Max. input current	54.5 A / 52.2 A	63.6 A / 60.9 A	72.7 A / 69.6 A
Rated input frequency	50 Hz / 60 Hz		
<b>Efficiency</b>			
Max. efficiency	97.6%		
EU efficiency	97.2%		
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 2.0	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)	464 × 763 × 282 mm		
Weight	48.5 kg		
Topology	Transformerless		
Operating ambient temperature range	-25 ~ + 60°C		
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		
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		