

Split Phase Hybrid Inverter

SUN-5/6/7.6/8K-SG01LP1-US



Intuitive

- Colorful touch LCD, IP65 protection degree



Intelligent

- 6 time periods for battery charging/discharging



Flexible

- AC couple to retrofit existing solar system
- Max. 16 pcs parallel for on-grid and off-grid operation; support multiple batteries parallel



Reliable

- Max. charging/discharging current of 190A
- Support storing energy from diesel generator

Model	SUN-5K-SG01LP1-US	SUN-6K-SG01LP1-US	SUN-7.6K-SG01LP1-US	SUN-8K-SG01LP1-US
Battery Input Data				
Battery Type	Lead-acid or Lithium-ion			
Battery Voltage Range (V)	40-60			
Max. Charging/Discharging Current (A)	120	135	190	190
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
Number of Battery Input	1			
PV String Input Data				
Max. PV Input Power (W)	6500	7800	9880	10400
Max. PV Input Voltage (V)	500			
Start-up Voltage (V)	125			
MPPT Voltage Range (V)	150-425			
Rated PV Input Voltage (V)	370			
Max. Operating PV Input Current (A)	13+13	26+13	26+26	
Max. Input Short-Circuit Current (A)	22+22	44+22	44+44	
No. of MPP Trackers/ No. of Strings MPP Tracker	2/1+1	2/2+1	2/2+2	
AC Input/Output Data				
Rated AC Input/Output Active Power (W)	5000	6000	7600	8000
Max. AC Input/Output Apparent Power (VA)	5500	6600	8360	8800
Rated AC Input/Output Current (A)	20.8	25	31.7	33.3
Max. AC Input/Output Current (A)	22.9	27.5	34.8	36.7
Max. Continuous AC Passthrough (grid to load) (A)	40		50	
Peak Power (off-grid) (W)	2 times of rated power, 10s			
Power Factor Adjustment Range	0.8 leading to 0.8 lagging			
Rated input/output voltage	120/240; 208 0.88Un< U< 1.1Un 2L+N+PE			
Rated Input/Output Grid Frequency/Range(Hz)	60/55-65			
Total Current Harmonic Distortion THDi	<3% (of nominal power)			
DC Injection Current	<0.5% In			
Efficiency				
Max. Efficiency	97.6%			
Euro Efficiency	96.5%			
MPPT Efficiency	>99%			
Equipment Protection				
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (AFCI) (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection			
Surge Protection Level	TYPE II(DC), TYPE II(AC)			
Interface				
LCD/LED Display	LCD			
Communication Interface	WIFI,RS485			
General Data				
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating			
Permissible Ambient Humidity	0-100%			
Permissible Altitude	2000m			
Noise (dB)	≤30			
Ingress Protection(IP) Rating	TYPE3R			
Inverter Topology	Non-Isolated (solar), Isolated (battery)			
Over Voltage Category	OVC II(DC),OVC IV(AC)			
Cabinet Size (WxHxD mm)	420×670×233 (Excluding Connectors and Brackets)			
Weight (kg)	30			
Type of Cooling	Intelligent Air Cooling			
Warranty	5 Years / Up to 10 Years* *Warranty period varies by installation country. Refer to the Warranty Policy for details.			
Grid Regulation	EN 50549, UNE 217002, NRS 097, IEEE 1547.1, SRD V2.0			
Safety EMC/Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			