

SUN-5/6K-SG01LP1

Description



- Colorful touch LCD, IP65 protection degree
- 6 time periods for battery charging/discharging
- Max. charging/discharging current of 190A
- AC couple to retrofit existing solar system
- Support storing energy from diesel generator
- Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel

Technical Specifications

Model	SUN-5K-SG01LP1-US	SUN-6K-SG01LP1-US	SUN-7.6K-SG01LP1-US/EU	SUN-8K-SG01LP1-US/EU
Battery Input Data				

Battery Type	Lead-acid or Lithium-ion			
Battery Voltage Range (V)	40~60			
Max. Charging Current (A)	120	135	190	190
Max. Discharging Current (A)	120	135	190	190
Charging Curve	3 Stages / Equalization			
External Temperature Sensor	Yes			
Charging Strategy for Li-Ion Battery	Self-adaption to BMS			

PV String Input Data

Max. DC Input Power (W)	6500	7800	9880	10400
Rated PV Input Voltage (V)	370(125 $\pm$ 1/2%~500 $\pm$ 1/4%)			
Start-up Voltage (V)	125			
MPPT Voltage Range (V)	150-425			
Full Load DC Voltage Range (V)	300-425 200-425			
PV Input Current (A)	13+13	26+13	26+26	
Max. PV ISC (A)	22+22	44+22	44+44	
Number of MPPT Trackers	2			
Number of Strings per MPPT Tracker	1+1	2+1	2+2	

AC Output Data

Rated AC Output Active Power (W)	5000	6000	7600		8000	
Max. AC Output Power (W)	5500	6600	8360		8800	
AC Output Rated Current (A)	20.8/24	25/28.8	31.7/36.5	34.5/33	33.3/38.5	36.4/34.8
Max AC Output Current (A)	22.9/26.4	27.5/31.7	34.8/40.2	38/36.3	36.7/42.3	40/38.3
Max. Continuous AC Passthrough (A)	50					
Peak Power (offgrid)	2 time of rated power, 10 S					

Power Factor Adjustment Range 0.8 leading to 0.8 lagging

Power Factor 1

Output Frequency and Voltage 50 / 60Hz; L1/L2/N(PE) 120/240Vac (split phase), 208Vac (2/3 phase), L/N/PE 220/230Vac (single phase)

Grid Type Split phase; 2/3 phase; Single Phase

Total Harmonic Distortion (THD) <3% (of nominal power)

DC Current Injection <0.5% I_n

Efficiency

Max. Efficiency 97.60%

Euro Efficiency 97.00%

MPPT Efficiency 99.90%

Protection

Integrated Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge Protection

Over Voltage Category DC Type II / AC Type A

Certifications and Standards

Grid Regulation VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150

Safety EMC / Standard IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2

General Data

Operating Temperature Range ($^{\circ}C$) -40~60 $^{\circ}C$, >45 $^{\circ}C$ Derating

Cooling Smart Cooling

Noise (dB) ≤ 30 dB

Communication with BMS RS485; CAN

Weight (kg) 32

Cabinet Size (WxHxD mm) 420~670~233 (Excluding Connectors and Brackets)

Protection Degree IP65

Installation Style
Warranty

Wall-mounted
5 Years (10 Years Optional)