

Hybrid Inverter

SUN-5/6K-SG01LP1-US

SUN-7.6/8K-SG01LP1-US/EU

OPTONICA
SOLAR



Colorful touch LCD, IP65 protection degree



DC couple and AC couple to retrofit existing solar system

16

Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel

190

Max. charging/discharging current of 190A

6

6 time periods for battery charging/discharging



Support storing energy from diesel generator

Deye

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 Li-Ion			
Battery Voltage Range (V)	40~60			
Max. Charging Current (A)	120	135	190	190
Max. Discharging Current (A)	120	135	190	190
External Temperature Sensor	Yes			
Charging Curve	3 Stages / Equalization			
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 (125~500)			
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 I _{SC} (A)	22+22	44+22	44+44	
No.of MPP Trackers		2		
No.of Strings per MPP Tracker	1	2+1	2	
AC Output Data				
Rated AC Output and UPS 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
Max. AC Current (A)	22.9/26.4	27.5/31.7	34.8/40.2	38/36.3
Max. Continuous AC Passthrough (A)	50			
Peak Power (off grid)	2 time of rated power, 10 S			
Power Factor	0.8 leading to 0.8 lagging			
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	PV Input Lightning Protection, 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			
Output Over Voltage Protection	DC Type II/AC Type III			
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 ()	-40~60℃, >45℃ derating			
Cooling	Smart cooling			
Noise (dB)	<30 dB			
Communication with BMS	RS485; CAN			
Weight (kg)	32			
Size (mm)	420W×670H×233D			
Protection Degree	IP65			
Installation Style	Wall-mounted			
Warranty	5 years			