







Hybrid Inverter

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



Deye

Clean Power For You

-  Colorful touch LCD, IP65 protection degree
-  6 time periods for battery charging/discharging
-  Max. charging/discharging current of 190A
-  Frequency droop control, Max.16pcs parallel
-  DC couple and AC couple to retrofit existing solar system
-  Support storing energy from diesel generator

9. Datasheet

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)	40-60V			
Max. Charging Current(A)	120A	135A	190A	190A
Max. Discharging Current(A)	120A	135A	190A	190A
Charging Curve	3 Stages / Equalization			
External Temperature Sensor	Optional			
Charging Strategy for Li-Ion Battery	Self-adaption to BMS			
PV String Input Data				
Max. DC Input Power(W)	6500W	7800W	9880W	10400W
PV Input Voltage(V)	370V (100V~500V)			
MPPT Range(V)	125~425V			
Start-up Voltage(V)	150V			
PV Input Current(A)	13A+ 13A	22A+11A	22A+22A	22A+22A
No. of MPPT Trackers	2			
No. of Strings Per MPPT Tracker	1+1	2+1	2+2	2+2
AC Output Data				
Rated AC Output and UPS Power(W)	5000	6000	7600	8000
Max. AC Output Power(W)	5500	6600	8360	8800
Peak Power(off grid)	2 times of rated power, 10 S			
AC Output Rated Current(A)	20.8A	25A	31.7A / 33A	33.4A / 35A
Max. AC Current(A)	22.9A	27.5A	34.9A / 36.3A	36.7A / 38.5A
Max. Continuous AC Passthrough(A)	35A	40A	50A	50A
Power Factor	0.8 leading to 0.8 lagging			
Output Frequency and Voltage	50 / 60Hz; 120 / 240Vac (split phase), 208Vac (2 / 3 phase), 230Vac (single phase)			
Grid Type	Split phase; 2 / 3 phase; Single Phase			
Current Harmonic Distortion	THD<3% (Linear load<1.5%)			
Efficiency				
Max. Efficiency	97.60%			
Euro Efficiency	97.00%			
MPPT Efficiency	99.90%			
Protection				
PV Arc Fault Detection	Integrated			
PV Input Lightning Protection	Integrated			
Anti-islanding Protection	Integrated			
PV String Input Reverse Polarity Protection	Integrated			
Insulation Resistor Detection	Integrated			
Residual Current Monitoring Unit	Integrated			
Output Over Current Protection	Integrated			
Output Shorted Protection	Integrated			
Surge Protection	DC Type II / AC Type II			

Certifications and Standards	
Grid Regulation	UL1741, IEEE1547, RULE21, VDE 0126, AS4777, NRS2017, G98, G99, IEC61683, IEC62116, IEC61727
Safety Regulation	IEC62109-1, IEC62109-2
EMC	EN61000-6-1, EN61000-6-3, FCC 15 class B
General Data	
Operating Temperature Range(°C)	-25~60 °C, >45 °C 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