

# Hybrid Inverter

SUN- 12 / 14 / 16 K-SG01LP1-AU-AM3



Colorful touch LCD, IP65 protection degree



AC couple to retrofit existing solar system



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



Max. charging/discharging current of 290A



6 time periods for battery charging/discharging



Support storing energy from diesel generator

**Deye**

Stock Code: 605117.SH

Model	SUN-12K-SG01LP1-AU-AM3	SUN-14K-SG01LP1-AU-AM3	SUN-16K-SG01LP1-AU-AM3
<b>Battery Input Data</b>			
Battery Type	Lead-acid or Lithium-ion		
Battery Voltage Range (V)	40-60		
Max. Charging Current (A)	220	250	290
Max. Discharging Current (A)	220	250	290
Charging Strategy for Li-ion Battery	Self-adaption to BMS		
Number of Battery Input	2		
<b>PV String Input Data</b>			
Max. DC Input Power (W)	18000	21000	24000
Max. DC Input Voltage (V)	500		
Start-up Voltage (V)	125		
Input Voltage Range (V)	150-425		
MPPT Full Power Voltage Range(V)	250-425		
Rated DC Input Voltage (V)	370		
Max. Operating PV Input Current (A)	26+26+26		
Max. Input Short-Circuit Current (A)	44+44+44		
No. of MPP Trackers/ No. of Strings per MPP Tracker	3/2+2+2		
<b>AC Input/Output Data</b>			
Rated AC Input/Output Active Power (W)	12000	14000	16000
Max. AC Input/Output Apparent Power (VA)	12000	14000	16000
Rated AC Input/Output Current (A)	52.2	60.9	69.6
Max. AC Input/Output Current (A)	52.2	60.9	69.6
Max. Continuous AC Passthrough (grid to load) (A)	100		
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/Range (V)	220/240 0.85Un-1.1Un		
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65		
Grid Connection Form	L+N+PE		
Total Current Harmonic Distortion THDi	<3% (of nominal power)		
DC Injection Current	<0.5% In		
<b>Efficiency</b>			
Max. Efficiency	97.6%		
Euro Efficiency	96.5%		
MPPT Efficiency	>99%		
<b>Equipment Protection</b>			
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch Overvoltage Load Drop Protection, Residual Current (RCD) Detection, Surge protection level		
Surge Protection Level	TYPE II(DC), TYPE II(AC)		
<b>Interface</b>			
Communication Interface	WIFI, RS485, CAN		
<b>General Data</b>			
Operating Temperature Range ( )	-40 to +60°C, >45°C Derating		
Permissible Ambient Humidity	0-100%		
Permissible Altitude	2000m		
Noise (dB)	<50		
Ingress Protection(IP) Rating	IP 65		
Inverter Topology	Non-Isolated		
Over Voltage Category	OVC II(DC), OVC III(AC)		
Cabinet Size (WxHxD mm)	464×763×282 (Excluding Connectors and Brackets)		
Weight (kg)	48		
Type of Cooling	Intelligent Air Cooling		
Warranty	10 Years		
Grid Regulation	AS/NZS 4777.2		
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		