

# Hybrid Inverter

SUN- 12 / 14 / 16 K-SG01LP1-EU



Deye



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

290

Max. charging/discharging current of 290A

6

6 time periods for battery charging/discharging



Support storing energy from diesel generator

# Technical Data

Model	SUN-12K-SG01LP1-EU		SUN-14K-SG01LP1-EU	SUN-16K-SG01LP1-EU
Battery Data				
Battery Type	Lead-acid or Li-Ion			
Battery Voltage Range (V)	40~60			
Max. Charging Current (A)	220	250	290	
Max. Discharging Current (A)	220	250	290	
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)	15600	18200	20800	
Max. DC Input Voltage (V)	500			
Start-up Voltage (V)	125			
MPPT Range (V)	150-425			
Rated DC Input Voltage (V)	370			
PV Input Current (A)	26+26+26			
Max. PV I <sub>SC</sub> (A)	44+44+44			
No.of MPP Trackers	3			
No.of Strings per MPP Tracker	2			
AC Output Data				
Rated AC Output Power (W)	12000	14000	16000	
AC Output Rated Current (A)	54.5/52.2	63.6/60.9	72.7/69.6	
Max. Continuous AC Passthrough (A)	100			
Peak Power (off grid)	2 time of rated power, 5 S			
Power Factor	0.8 leading to 0.8 lagging			
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac (single phase)			
Grid Type	Single Phase			
Total Harmonic Distortion (THD)	<3% (of nominal power)			
DC current injection	<0.5% I <sub>n</sub>			
Backup Data				
Backup Power (W)	10000	12000	14000	
Backup Rated Current (A)	45.5/43.5	54.5/52.2	63.6/60.9	
Backup UPS	6ms Automatic switchover time			
Efficiency				
Max. Efficiency	97.60%			
Euro Efficiency	96.50%			
MPPT Efficiency	99.90%			
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 (°C)	-40~60°C, >45°C derating			
Cooling	Smart cooling			
Noise (dB)	<30 dB			
Communication with BMS	RS485; CAN			
Weight (kg)	48.5			
Size (mm)	464W×798.4H×300D			
Protection Degree	IP65			
Installation Style	Wall-mounted			
Warranty	5 years			
Features				
Max. Number of Parallel (PCS)	16			