



HYBRID (BI-DIRECTION) SOLAR INVERTER

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

FEATURES :

- ◆ 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 Data

Model	SG-12K-SG01LP1-EU	SG-14K-SG01LP1-EU	SG-16K-SG01LP1-EU
Battery Input Data			
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		
PV String Input Data			
Max DC Input Power (W)	15600	18200	20800
Max DC Input Voltage (V)	500		
Start-up Voltage (V)	125		
MPPT Voltage Range (V)	150-425		
Rated DC Input Voltage(V)	370		
Max Input Short-Circuit Current (A)	44+44+44		
Max Operating PV Input Current (A)	26+26+26		
No of MPP Trackers/No of String Per MPP Tracker	3/2+2+2		
AC Input/Output Data			
Rated AC Input/Output Active Power (W)	12000	14000	16000
Max AC Input/Output Apparent Power (VA)	13200	15400	17600
Peak Power (off grid) (W)	2 times of rated power,10s		
Rated AC Input/Output Current (A)	54.5/52.2	63.6/60.9	72.7/69.6
Max AC Input/Output Current (A)	60/57.4	70/67	80/76.5
Max Continuous AC Passthrough (grid to load) (A)	100		
Rated Input/Output Voltage/Range(V)	220V/230 0.85Un-1.1Un		
Grid Connection Form	L+N+PE		
Rated Input/Output Grid Frequency/Range	50/45-55, 60/55-65		
Power Factor Adjustment Range	0.8 leading-0.8lagging		
Total Current Harmonic Distortion THDI	<3% (of nominal power)		
DC Injection Current	<0.5%In		
Efficiency			
Max Efficiency	97.60%		
Euro Efficiency	96.50%		
MPPT Efficiency	> 99%		
Equipment Protection			
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)		
Interface			
Communication Interface	WIFI,RS485,CAN		
General Data			
Operating Temperature Range	-40 to +60℃, >45℃ Derating		
Permissible Ambient Humidity	0-100%		
Permissible Altitude	2000m		
Noise	< 50 dB(A)		
Ingress Protection(IP) Rating	IP 65		
Inverter Topology	Non-Isolated		
Over Voltage Category	OVC II(DC),OVC III(AC)		
Cabinet size (W*H*D) (mm)	464*763*282 (Excluding connectors and brackets)		
Weight[kg]	52		
Warranty	5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy		
Type Of Cooling	Intelligent air cooling		
Grid Regulation	IEC 61727,IEC 62116,NRS 097		
Safety EMC/Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		