Single Phase Hybrid Inverter

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



Intuitive

- Colorful touch LCD, IP65 protection degree

Intelligent

- 6 time periods for battery charging/discharging

Flexible

- AC couple to retrofit existing solar system
- Max. 16 pcs parallel for on-grid and off-grid operation; support multiple batteries parallel

Reliable

- Max. charging/discharging current of 290A
- Support storing energy from diesel generator

Technical Data

Model	SUN-12K-SG01LP1-EU	SUN-14K-SG01LP1-EU	SUN-16K-SG01LP1-EU
Battery Input Data			
Battery Type	Lead-acid or Lithium-ion		
Battery Voltage Range (V)	40-60		
Max. Charging/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. PV access power (W)	24000	28000	32000
Max. PV Input Power (W)	19200	22400	25600
Max. PV Input Voltage (V)	500		
Start-up Voltage (V)	125		
MPPT Voltage Range (V)	150-425		
Rated PV Input Voltage (V)	370		
Max. Operating PV Input Current (A)	32+32+32		
Max. Input Short-Circuit Current (A)	60+60+60		
No. of MPP Trackers/ No. of Strings 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
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		
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	220/230V 0.85Un-1.1Un L+N+PE		
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65		
Total Current Harmonic Distortion THDi	<3% (of nominal power)		
DC Injection Current	<0.5% In		
Efficiency			
Max. Efficiency	97.6%		
Euro Efficiency	96.5%		
MPPT Efficiency	>99%		
Equipment Protection			
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (AFCI) (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection		
Surge Protection Level	TYPE II(DC), TYPE II(AC)		
Interface			
LCD/LED Display	LCD		
Communication Interface	WIFI, RS485, CAN		
General Data			
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating		
Permissible Ambient Humidity	0-100%		
Permissible Altitude	2000m		
Noise (dB)	<45		
Ingress Protection(IP) Rating	IP 65		
Inverter Topology	Non-Isolated (solar), Isolated (battery)		
Over Voltage Category	OVC II(DC), OVC III(AC)		
Cabinet Size (WxHxD mm)	464×763×282 (Excluding Connectors and Brackets)		
Weight (kg)	52		
Type of Cooling	Intelligent Air Cooling		
Warranty	5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy		
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		

Deye
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