Single Phase Hybrid Inverter

SUN-12/14/16/18K-SG01LP1-EU-AM3-P



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 380A
- Support storing energy from diesel generator

Technical Data

Model	SUN-12K-SG01 LP1-EU-AM3-P	SUN-14K-SG01 LP1-EU-AM3-P	SUN-16K-SG01 LP1-EU-AM3-P	SUN-18K-SG01 LP1-EU-AM3-P
Battery Input Data				
Battery Type	Lead-acid or Lithium-ion			
Battery Voltage Range (V)	40-60			
Max. Charging/Discharging Current (A)	220	250	290	380
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	36000
Max. PV Input Power (W)	19200	22400	25600	28800
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)	36+36+36			
Max. Input Short-Circuit Current (A)	54+54+54			
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	18000
Max. AC Input/Output Apparent Power (VA)	13200	15400	17600	19800
Rated AC Input/Output Current (A)	54.6/52.2	63.7/60.9	72.8/69.6	81.9/78.3
Max. AC Input/Output Current (A)	60/57.4	70/67	80/76.6	90/86.1
Max. Continuous AC Passthrough (grid to load) (A)	100			200
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	3000m			
Noise (dB)	<55			
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)			464×863×282
Weight (kg)	54.1			59.8
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, AS 4777.2, NRS 097			
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			