

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 | | |