# Single Phase Hybrid Inverter

SUN-7.6/8K-SG02LP1-AU-AM2-P
SUN-10/12K-SG02LP1-AU-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 250A
- Support storing energy from diesel generator

# Technical Data



| Model | SUN-7.6K-SG02 LP1-AU-AM2-P | SUN-8K-SG02 LP1-AU-AM2-P | SUN-10K-SG02 LP1-AU-AM3-P | SUN-12K-SG02 LP1-AU-AM3-P |
|---|---|---|---|---|
| **Battery Input Data** | | | | |
| Battery Type | Lead-acid or Lithium-ion | | | |
| Battery Voltage Range (V) | 40-60 | | | |
| Max. Charging/Discharging Current (A) | 190 | 190 | 220 | 250 |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | | |
| Number of Battery Input | 1 | | | |
| **PV String Input Data** | | | | |
| Max. PV access power (W) | 15200 | 16000 | 20000 | 24000 |
| Max. PV Input Power (W) | 12160 | 12800 | 16000 | 19200 |
| 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+32+32 | |
| Max. Input Short-Circuit Current (A) | 48+48 | | 48+48+48 | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/2+2 | | 3/2+2+2 | |
| **AC Input/Output Data** | | | | |
| Rated AC Input/Output Active Power (W) | 7600 | 8000 | 9999 | 12000 |
| Max. AC Input/Output Apparent Power (VA) | 7600 | 8000 | 9999 | 12000 |
| Rated AC Input/Output Current (A) | 33.1 | 34.8 | 43.5 | 52.2 |
| Max. AC Input/Output Current (A) | 33.1 | 34.8 | 43.5 | 52.2 |
| Max. Continuous AC Passthrough (grid to load) (A) | 50 | | 60 | |
| 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 | 230V 0.85Un-1.1Un L+N+PE | | | |
| Rated Input/Output Grid Frequency/Range(Hz) | 50/45-55 | | | |
| Total Current Harmonic Distortion THDi | <3% (of nominal power) | | | |
| DC Injection Current | <0.5% In | | | |
| **Generator Data** | | | | |
| Nominal Input Voltage (V) | 230V | | | |
| Rated Input Current (A) | 50 | | 60 | |
| Power Factor | 0.8 leading-0.8 lagging | | | |
| Frequency | 50Hz | | | |
| **Backup Data** | | | | |
| Nominal Output Voltage (V) | 230V | | | |
| Rated Output Current (A) | 33.1 | 34.8 | 43.5 | 52.5 |
| Rated Apparent Power (VA) | 7600 | 8000 | 9999 | 12000 |
| Power Factor | 0.8 leading-0.8 lagging | | | |
| Frequency | 50Hz | | | |
| **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(Active Frequency shift), 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 | | | |
| Protection Level | Class I | | | |
| Inverter Topology | Non-Isolated | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | |
| Cabinet Size (WxHxD mm) | 420×670×233 (Excluding Connectors and Brackets) | | | |
| Weight (kg) | 35.6 | | | |
| Type of Cooling | Intelligent Air Cooling | | | |
| Warranty | 10 Years | | | |
| Grid Regulation | AS/NZS 4777.2 | | | |
| Safety / EMC Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | |