# Three Phase Hybrid Inverter

SUN-100K-SG02HP3-EU-GM8
SUN-100/125K-SG02HP3-EU-GM10

## Efficient

- High voltage battery, higher efficiency

## Intelligent

- 6 time periods for battery charging/discharging

## Flexible

- AC couple to retrofit existing solar system
- Max. 10 pcs parallel for on-grid and off-grid operation; support multiple batteries parallel

## Reliable

- Max. charging/discharging current of 200A
- Support storing energy from diesel generator

# Technical Data



| Model | SUN-100K-SG02HP3-EU-GM8 | SUN-100K-SG02HP3-EU-GM10 | SUN-125K-SG02HP3-EU-GM10 |
|---|---|---|---|
| **Battery Input Data** | | | |
| Battery Type | Lithium-ion | | |
| Battery Voltage Range (V) | 160-1000 | | |
| Max. Charging/Discharging Current (A) | 100+100 | | |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | |
| Number of Battery Input | 2 | | |
| **PV String Input Data** | | | |
| Max. PV access power (W) | 200000 | 200000 | 250000 |
| Max. PV Input Power (W) | 160000 | 160000 | 200000 |
| Max. PV Input Voltage (V) | 1000 | | |
| Start-up Voltage (V) | 180 | | |
| MPPT Voltage Range (V) | 150-850 | | |
| Rated PV Input Voltage (V) | 650 | | |
| Max. Operating PV Input Current (A) | 42+42+42+42+42+42+42+42 | 42+42+42+42+42+42+42+42+42+42 | |
| Max. Input Short-Circuit Current (A) | 63+63+63+63+63+63+63+63 | 63+63+63+63+63+63+63+63+63+63 | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 8/2+2+2+2+2+2+2+2 | 10/2+2+2+2+2+2+2+2+2+2 | |
| **AC Input/Output Data** | | | |
| Rated AC Input/Output Active Power (W) | 100000 | 100000 | 125000 |
| Max. AC Input/Output Apparent Power (VA) | 110000 | 110000 | 135000 |
| Rated AC Input/Output Current (A) | 151.6/145.0 | 151.6/145.0 | 189.4/181.2 |
| Max. AC Input/Output Current (A) | 166.7/159.5 | 166.7/159.5 | 204.6/195.7 |
| Max. Continuous AC Passthrough (grid to load) (A) | 250 | | |
| Peak Power (off-grid) (W) | 1.5 times of rated power, 10s | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | |
| Rated input/output voltage | 220/380V, 230/400V 0.85Un-1.1Un 3L+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 | 98.70% | | |
| Euro Efficiency | 98.10% | | |
| 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+LED | | |
| Communication Interface | RS485,RS232,CAN | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | |
| **General Data** | | | |
| Operating Temperature Range (°C) | -40 to +60°C, >45°C Derating | | |
| Permissible Ambient Humidity | 0-100% | | |
| Permissible Altitude | 3000m | | |
| Noise (dB) | ≤65 | | |
| Ingress Protection(IP) Rating | IP 65 | | |
| Inverter Topology | Non-Isolated | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | |
| Cabinet Size (WxHxD mm) | 734×1091×344 (Excluding Connectors and Brackets) | | |
| Weight (kg) | 161.7 | | |
| Type of Cooling | Intelligent Air Cooling | | |
| Warranty | 5 Years/10 Years<br>the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy | | |
| Grid Regulation | IEC 61727,IEC 62116,CEI 0-21,EN 50549 , NRS 097,RD 140,UNE 217002, OVE-Richtlinie R25,G99,VDE-AR-N 4105 | | |
| Safety / EMC Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | |

Preliminary