# Three Phase Hybrid Inverter

SUN-5/6/8/10/12K-SG01HP3-EU-DM2



## 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 37A
- Support storing energy from diesel generator
- 100% unbalanced output

## Technical Data

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| Model | SUN-5K-SG01HP3-EU-DM2 | SUN-6K-SG01HP3-EU-DM2 | SUN-8K-SG01HP3-EU-DM2 | SUN-10K-SG01HP3-EU-DM2 | SUN-12K-SG01HP3-EU-DM2 |
|---|---|---|---|---|---|
| **Battery Input Data** | | | | | |
| Battery Type | Lithium-ion | | | | |
| Battery Voltage Range (V) | 160-700 | | | | |
| Max. Charging/Discharging Current (A) | 37 | | | | |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | | | |
| Number of Battery Input | 1 | | | | |
| **PV String Input Data** | | | | | |
| Max. PV access power (W) | 10000 | 12000 | 16000 | 20000 | 24000 |
| Max. PV Input Power (W) | 8000 | 9600 | 12800 | 16000 | 19200 |
| Max. PV Input Voltage (V) | 1000 | | | | |
| Start-up Voltage (V) | 180 | | | | |
| MPPT Voltage Range (V) | 150-850 | | | | |
| Rated PV Input Voltage (V) | 600 | | | | |
| Max. Operating PV Input Current (A) | 18+18 | | | | |
| Max. Input Short-Circuit Current (A) | 27+27 | | | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/1+1 | | | | |
| **AC Input/Output Data** | | | | | |
| Rated AC Input/Output Active Power (W) | 5000 | 6000 | 8000 | 10000 | 12000 |
| Max. AC Input/Output Apparent Power (VA) | 5500 | 6600 | 8800 | 11000 | 13200 |
| Rated AC Input/Output Current (A) | 7.6/7.3 | 9.1/8.7 | 12.2/11.6 | 15.2/14.5 | 18.2/17.4 |
| Max. AC Input/Output Current (A) | 8.4/8.0 | 10/9.6 | 13.4/12.8 | 16.7/16 | 20/19.2 |
| Max. Continuous AC Passthrough (grid to load) (A) | 35 | | | | |
| 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% | | | | |
| DC Injection Current | <0.5% In | | | | |
| **Efficiency** | | | | | |
| Max. Efficiency | 97.6% | | | | |
| Euro Efficiency | 97.0% | | | | |
| 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 | 2000m | | | | |
| Noise (dB) | ≤45 | | | | |
| Ingress Protection(IP) Rating | IP 65 | | | | |
| Inverter Topology | Non-Isolated | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | |
| Cabinet Size (WxHxD mm) | 376×470×244.5 (Excluding Connectors and Brackets) | | | | |
| Weight (kg) | 24 | | | | |
| Type of Cooling | Natural Cooling | | | | Intelligent Air Cooling |
| Warranty | 5 Years / Up to 10 Years* *Warranty period varies by installation country. Refer to the Warranty Policy for details. | | | | |
| 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 | | | | |