# Single Phase Hybrid Inverter

## SUN-3.6/5/6/7/7.6/8/10K-SG05LP1-EU-SM2-P





- Colorful touch LCD, IP65 protection degree
- AC couple to retrofit existing solar system
- 16 — Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 210 — Max. charging/discharging current of 210A
- 6 — 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

Deye

Stock Code: 605117.SH

# Technical Data



| Model | SUN-3.6K-SG05 LP1-EU-SM2-P | SUN-5K-SG05 LP1-EU-SM2-P | SUN-6K-SG05 LP1-EU-SM2-P | SUN-7K-SG05 LP1-EU-SM2-P | SUN-7.6K-SG05 LP1-EU-SM2-P | SUN-8K-SG05 LP1-EU-SM2-P | SUN-10K-SG05 LP1-EU-SM2-P |
|---|---|---|---|---|---|---|---|
| **Battery Input Data** | | | | | | | |
| Battery Type | Lead-acid or Lithium-ion | | | | | | |
| Battery Voltage Range (V) | 40-60 | | | | | | |
| Max. Charging Current (A) | 90 | 120 | 135 | 175 | 190 | 190 | 210 |
| Max. Discharging Current (A) | 90 | 120 | 135 | 175 | 190 | 190 | 210 |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | | | | | |
| Number of Battery Input | 1 | | | | | | |
| **PV String Input Data** | | | | | | | |
| Max. PV Access Power (W) | 7200 | 10000 | 12000 | 14000 | 15200 | 16000 | 20000 |
| Max. PV Input Power (W) | 5760 | 8000 | 9600 | 11200 | 12160 | 12800 | 16000 |
| 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) | 18+18 | | | 32+32 | | | |
| Max. Input Short-Circuit Current (A) | 27+27 | | | 48+48 | | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/1+1 | | | 2/2+2 | | | |
| **AC Input/Output Data** | | | | | | | |
| Rated AC Input/Output Active Power (W) | 3600 | 5000 | 6000 | 7000 | 7600 | 8000 | 10000 |
| Max. AC Input/Output Apparent Power (VA) | 3960 | 5500 | 6600 | 7700 | 8360 | 8800 | 11000 |
| Rated AC Input/Output Current (A) | 16.4/15.7 | 22.8/21.8 | 27.3/26.1 | 31.9/30.5 | 34.6/33.1 | 36.4/34.8 | 45.5/43.5 |
| Max. AC Input/Output Current (A) | 18/17.3 | 25/24 | 30/28.7 | 35/33.5 | 38/36.4 | 40/38.3 | 50/47.9 |
| Max. Continuous AC Passthrough (grid to load) (A) | 35 | | 40 | 50 | | | |
| 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/Range (V) | 220/230 0.85Un-1.1Un | | | | | | |
| Rated Input/Output Grid Frequency/Range(Hz) | 50/45-55, 60/55-65 | | | | | | |
| Grid Connection Form | L+N+PE | | | | | | |
| 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 (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection | | | | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | | | | |
| **Interface** | | | | | | | |
| 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) | <30 | | | | | | |
| Ingress Protection(IP) Rating | IP 65 | | | | | | |
| Inverter Topology | Non-Isolated | | | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | | | |
| Cabinet Size (WxHxD mm) | 366×589.5×237 (Excluding Connectors and Brackets) | | | | | | |
| Weight (kg) | 26.8 | | | | | | |
| 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, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G98, G99, VDE-AR-N 4105 | | | | | | |
| Safety / EMC Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | | | |

Deye
**Ningbo Deye Inverter Technology Co., Ltd.**
Address: No. 26 South YongJiang Road, Daqi, Beilun, NingBo, Zhejiang, China. | Tel: +86 (0)574 86228841 | E-mail: market@deye.com.cn