# Three Phase Hybrid Inverter

## SUN-3/4/5/6/8/10/12K-SG05LP3-EU-SM2





- 100% unbalanced output, max. output up to 50% rated power for each phase
- AC couple to retrofit existing solar system
- Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- Max. charging/discharging current of 240A
- 48V low voltage battery, transformer isolation design
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

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Tesla Solar SA

Stock Code: 605117.SH

# Technical Data



| Model | SUN-3K-SG05 LP3-EU-SM2 | SUN-4K-SG05 LP3-EU-SM2 | SUN-5K-SG05 LP3-EU-SM2 | SUN-6K-SG05 LP3-EU-SM2 | SUN-8K-SG05 LP3-EU-SM2 | SUN-10K-SG05 LP3-EU-SM2 | SUN-12K-SG05 LP3-EU-SM2 |
|---|---|---|---|---|---|---|---|
| **Battery Input Data** | | | | | | | |
| Battery Type | Lead-acid or Lithium-ion | | | | | | |
| Battery Voltage Range (V) | 40-60 | | | | | | |
| Max. Charging Current (A) | 70 | 95 | 120 | 135 | 190 | 210 | 240 |
| Max. Discharging Current (A) | 70 | 95 | 120 | 135 | 190 | 210 | 240 |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | | | | | |
| Number of Battery Input | 1 | | | | | | |
| **PV String Input Data** | | | | | | | |
| Max. PV Access Power (W) | 6000 | 8000 | 10000 | 12000 | 16000 | 20000 | 24000 |
| Max. PV Input Power (W) | 4500 | 6000 | 7500 | 9000 | 12000 | 15000 | 18000 |
| Max. PV Input Voltage (V) | 800 | | | | | | |
| Start-up Voltage (V) | 160 | | | | | | |
| MPPT Voltage Range (V) | 200-650 | | | | | | |
| Rated PV Input Voltage (V) | 550 | | | | | | |
| Max. Operating PV Input Current (A) | 20+20 | | | | | 26+26 | |
| Max. Input Short-Circuit Current (A) | 30+30 | | | | | 39+39 | |
| 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) | 3000 | 4000 | 5000 | 6000 | 8000 | 10000 | 12000 |
| Max. AC Input/Output Apparent Power (VA) | 3300 | 4400 | 5500 | 6600 | 8800 | 11000 | 13200 |
| Rated AC Input/Output Current (A) | 4.6/4.4 | 6.1/5.8 | 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) | 5/4.8 | 6.7/6.4 | 8.4/8 | 10/9.6 | 13.4/12.8 | 16.7/16 | 20/19.2 |
| Max. Continuous AC Passthrough (grid to load) (A) | 45 | | | | | | |
| 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) | 220/380V, 230/400V 0.85Un-1.1Un | | | | | | |
| Rated Input/Output Grid Frequency/Range(Hz) | 50/45-55, 60/55-65 | | | | | | |
| Grid Connection Form | 3L+N+PE | | | | | | |
| Total Current Harmonic Distortion THDi | <3% (of nominal power) | | | | | | |
| 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 (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 | 3000m | | | | | | |
| Noise (dB) | ≤55 | | | | | | |
| Ingress Protection(IP) Rating | IP 65 | | | | | | |
| Inverter Topology | Non-Isolated | | | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | | | |
| Cabinet Size (WxHxD mm) | 386×660×250 (Excluding Connectors and Brackets) | | | | | | |
| Weight (kg) | 35.2 | | | | | | |
| 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 | | | | | | |

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