

Hybrid Inverter

SUN-5/6/7.6/8K-SG01LP1-US



Colorful touch LCD, IP65 protection degree



AC couple to retrofit existing solar system



Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel



Max. charging/discharging current of 190A



6 time periods for battery charging/discharging



Support storing energy from diesel generator

Deye

Stock Code: 605117.SH

| Model | SUN-5K -SG01LP1-US | SUN-6K -SG01LP1-US | SUN-7.6K -SG01LP1-US | SUN-8K -SG01LP1-US |
|--|--|-----------------------|-------------------------|-----------------------|
| Battery Input Data | | | | |
| Battery Type | Lead-acid or Lithium-ion | | | |
| Battery Voltage Range (V) | 40-60 | | | |
| Max. Charging Current (A) | 120 | 135 | 190 | 190 |
| Max. Discharging Current (A) | 120 | 135 | 190 | 190 |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | | |
| Number of Battery Input | 1 | | | |
| PV String Input Data | | | | |
| Max. DC Input Power (W) | 6500 | 7800 | 9880 | 10400 |
| Max. DC Input Voltage (V) | 500 | | | |
| Start-up Voltage (V) | 125 | | | |
| MPPT Voltage Range (V) | 150-425 | | | |
| Rated DC Input Voltage (V) | 370 | | | |
| Max. Operating PV Input Current (A) | 13+13 | 26+13 | 26+26 | |
| Max. Input Short-Circuit Current (A) | 22+22 | 44+22 | 44+44 | |
| No. of MPP Trackers/ No. of Strings per MPP Tracker | 2/1+1 | 2/2+1 | 2/2+2 | |
| AC Input/Output Data | | | | |
| Rated AC Input/Output Active Power (W) | 5000 | 6000 | 7600 | 8000 |
| Max. AC Input/Output Apparent Power (VA) | 5500 | 6600 | 8360 | 8800 |
| Rated AC Input/Output Current (A) | 20.8 | 25 | 31.7 | 33.3 |
| Max. AC Input/Output Current (A) | 22.9 | 27.5 | 34.8 | 36.7 |
| Max. Continuous AC Passthrough (grid to load) (A) | 40 | | 50 | |
| Peak Power (off-grid) (W) | 2 times of rated power, 10s | | | |
| Power Factor Adjustment Range | 0.9-1 | | | |
| Rated Input/Output Voltage/Range (V) | 120/240; 208 0.88Un<U<1.1Un | | | |
| Rated Input/Output Grid Frequency/Range(Hz) | 60/55-65 | | | |
| Grid Connection Form | 2L+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 Polarity Reverse Connection Protection, AC Output Overcurrent Protection AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch Overvoltage Load Drop Protection, Residual Current (RCD) Detection, Surge protection level | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | |
| Interface | | | | |
| Communication Interface | WIFI, RS485, CAN | | | |
| General Data | | | | |
| Operating Temperature Range () | -40 to +60°C, >45°C Derating | | | |
| Permissible Ambient Humidity | 0-100% | | | |
| Permissible Altitude | 2000m | | | |
| Noise (dB) | <30 | | | |
| Ingress Protection(IP) Rating | TYPE3R | | | |
| 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) | 30 | | | |
| 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 | EN 50549, UNE 217002, NRS 097, IEEE 1547.1, SRD V2.0 | | | |
| Safety / EMC Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2, UL 1741 | | | |