



Three Phase Hybrid Inverter

SUN-14/15/16/18/20K-SG05LP3-EU-SM2



- 100** 100% unbalanced output, max. output up to 50% rated power for each phase
-  AC couple to retrofit existing solar system
- 10** Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 350** Max. charging/discharging current of 350A
- 48** 48V low voltage battery, transformer isolation design
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

Deye

Stock Code: 605117.SH

| Model | SUN-14K-SG05LP3 -EU-SM2 | SUN-15K-SG05LP3 -EU-SM2 | SUN-16K-SG05LP3 -EU-SM2 | SUN-18K-SG05LP3 -EU-SM2 | SUN-20K-SG05LP3 -EU-SM2 |
|--|---|----------------------------|----------------------------|----------------------------|----------------------------|
| Battery Input Data | | | | | |
| Battery Type | Lead-acid or Lithium-ion | | | | |
| Battery Voltage Range (V) | 40-60 | | | | |
| Max. Charging Current (A) | 260 | 280 | 300 | 330 | 350 |
| Max. Discharging Current (A) | 260 | 280 | 300 | 330 | 350 |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | | | |
| Number of Battery Input | 1 | | | | |
| PV String Input Data | | | | | |
| Max. PV Access Power (W) | 28000 | 30000 | 32000 | 36000 | 40000 |
| Max. PV Input Power (W) | 22400 | 24000 | 25600 | 28800 | 32000 |
| Max. PV Input Voltage (V) | 800 | | | | |
| Start-up Voltage (V) | 160 | | | | |
| MPPT Voltage Range (V) | 160-650 | | | | |
| Rated PV Input Voltage (V) | 550 | | | | |
| Max. Operating PV Input Current (A) | 36+36 | | | | |
| Max. Input Short-Circuit Current (A) | 54+54 | | | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/2+2 | | | | |
| AC Input/Output Data | | | | | |
| Rated AC Input/Output Active Power (W) | 14000 | 15000 | 16000 | 18000 | 20000 |
| Max. AC Input/Output Apparent Power (VA) | 15400 | 16500 | 17600 | 19800 | 22000 |
| Rated AC Input/Output Current (A) | 21.3/20.3 | 22.8/21.8 | 24.3/23.2 | 27.3/26.1 | 30.4/29 |
| Max. AC Input/Output Current (A) | 23.4/22.4 | 25/24 | 26.7/25.6 | 30/28.7 | 33.4/31.9 |
| Max. Continuous AC Passthrough (grid to load) (A) | 70 | | | | |
| 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) | <60 | | | | |
| Ingress Protection(IP) Rating | IP 65 | | | | |
| Inverter Topology | Non-Isolated | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | |
| Cabinet Size (WxHxD mm) | 456×750×268.5 (Excluding Connectors and Brackets) | | | | |
| Weight (kg) | 51.9 | | | | |
| 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, G99, VDE-AR-N 4105 | | | | |
| Safety / EMC Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | |