

# Single Phase Hybrid Inverter

SUN-3/3.6/5/6K-SG04LP1-EU



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 140A



6 time periods for battery charging/discharging



Support storing energy from diesel generator

**Deye**

Stock Code: 605117.SH

| Model  | SUN-3K<br>-SG04LP1-24-EU   | SUN-3K<br>-SG04LP1-EU | SUN-3.6K<br>-SG04LP1-EU | SUN-5K<br>-SG04LP1-EU | SUN-6K<br>-SG04LP1-EU   |
|--|--|-----------------------|-------------------------|-----------------------|-------------------------|
| <b>Battery Input Data</b>                              |  |                       |                         |                       |                         |
| Battery Type   | Lead-acid or Lithium-ion   |                       |                         |                       |                         |
| Battery Voltage Range (V)                              | 20-30  | 40-60                 | 40-60                   | 40-60                 | 40-60                   |
| Max. Charging Current (A)                              | 140  | 70                    | 90                      | 120                   | 135                     |
| Max. Discharging Current (A)                           | 140  | 70                    | 90                      | 120                   | 135                     |
| Charging Strategy for Li-ion Battery                   | Self-adaption to BMS   |                       |                         |                       |                         |
| Number of Battery Input                                | 1  |                       |                         |                       |                         |
| <b>PV String Input Data</b>                            |  |                       |                         |                       |                         |
| Max. PV Input Power (W)                                | 3900   | 3900                  | 4680                    | 6500                  | 7800                    |
| 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)                    | 13   |                       | 13+13                   |                       |                         |
| Max. Input Short-Circuit Current (A)                   | 17   |                       | 17+17                   |                       |                         |
| No. of MPP Trackers/<br>No. of Strings per MPP Tracker | 1/1  |                       | 2/1+1                   |                       |                         |
| <b>AC Input/Output Data</b>                            |  |                       |                         |                       |                         |
| Rated AC Input/Output Active Power (W)                 | 3000   |                       | 3600                    | 5000                  | 6000                    |
| Max. AC Input/Output Apparent Power (VA)               | 3300   |                       | 3960                    | 5500                  | 6600                    |
| Rated AC Input/Output Current (A)                      | 13.6/13  |                       | 16.4/15.7               | 22.7/21.7             | 27.3/26.1               |
| Max. AC Input/Output Current (A)                       | 15/14.3  |                       | 18/17.2                 | 25/23.9               | 30/28.7                 |
| Max. Continuous AC Passthrough (grid to load) (A)      | 35   |                       |                         |                       | 40                      |
| 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   |                       |                         |                       |                         |
| <b>Efficiency</b>                                      |  |                       |                         |                       |                         |
| Max. Efficiency  | 97.6%  |                       |                         |                       |                         |
| Euro Efficiency  | 96.5%  |                       |                         |                       |                         |
| MPPT Efficiency  | >99%   |                       |                         |                       |                         |
| <b>Equipment Protection</b>                            |  |                       |                         |                       |                         |
| Integrated   | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection<br>AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection<br>DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring<br>Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch<br>Overvoltage Load Drop Protection, Residual Current (RCD) Detection, Surge protection level |                       |                         |                       |                         |
| Surge Protection Level                                 | TYPE II(DC), TYPE II(AC)   |                       |                         |                       |                         |
| <b>Interface</b>                                       |  |                       |                         |                       |                         |
| Communication Interface                                | RS485/RS232/CAN  |                       |                         |                       |                         |
| Monitor Mode   | GPRS/WIFI/Bluetooth/4G/LAN(optional)   |                       |                         |                       |                         |
| <b>General Data</b>                                    |  |                       |                         |                       |                         |
| 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                          | IP 65  |                       |                         |                       |                         |
| Inverter Topology                                      | Non-Isolated   |                       |                         |                       |                         |
| Over Voltage Category                                  | OVC II(DC), OVC III(AC)  |                       |                         |                       |                         |
| Cabinet Size (WxHxD mm)                                | 330x433x229 (Excluding Connectors and Brackets)  |                       |                         |                       |                         |
| Weight (kg)  | 17   |                       |                         |                       |                         |
| Type of Cooling  | Natural Cooling  |                       |                         |                       | Intelligent Air Cooling |
| Warranty   | 5 Years/10 Years<br>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,<br>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   |                       |                         |                       |                         |