

# Hybrid Inverter

SUN- 5 / 6 / 8 / 10 / 12 K-SG04LP3-EU



- 100** 100% unbalanced output, each phase; Max. output up to **50%** rated power
-  DC couple and AC couple to retrofit existing solar system
- 10** Max. 10pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 240** Max. charging/discharging current of 240A
- 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-5K<br>-SG04LP3-EU                                                                                                                                                                                                                               | SUN-6K<br>-SG04LP3-EU | SUN-8K<br>-SG04LP3-EU | SUN-10K<br>-SG04LP3-EU | SUN-12K<br>-SG04LP3-EU |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|------------------------|------------------------|
| Battery Input Data                   |                                                                                                                                                                                                                                                     |                       |                       |                        |                        |
| Battery Type                         | Lead-acid or Li-Ion                                                                                                                                                                                                                                 |                       |                       |                        |                        |
| Battery Voltage Range (V)            |                                                                                                                                                                                                                                                     |                       | 40~60                 |                        |                        |
| Max. Charging Current (A)            | 120                                                                                                                                                                                                                                                 | 150                   | 190                   | 210                    | 240                    |
| Max. Discharging Current (A)         | 120                                                                                                                                                                                                                                                 | 150                   | 190                   | 210                    | 240                    |
| External Temperature Sensor          | Yes                                                                                                                                                                                                                                                 |                       |                       |                        |                        |
| Charging Curve                       | 3 Stages / Equalization                                                                                                                                                                                                                             |                       |                       |                        |                        |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS                                                                                                                                                                                                                                |                       |                       |                        |                        |
| PV String Input Data                 |                                                                                                                                                                                                                                                     |                       |                       |                        |                        |
| Max. DC Input Power (W)              | 6500                                                                                                                                                                                                                                                | 7800                  | 10400                 | 13000                  | 15600                  |
| Rated PV Input Voltage (V)           | 550 (160~800)                                                                                                                                                                                                                                       |                       |                       |                        |                        |
| Start-up Voltage (V)                 | 160                                                                                                                                                                                                                                                 |                       |                       |                        |                        |
| MPPT Voltage Range (V)               | 200-650                                                                                                                                                                                                                                             |                       |                       |                        |                        |
| Full Load DC Voltage Range (V)       | 350-650                                                                                                                                                                                                                                             |                       |                       |                        |                        |
| PV Input Current (A)                 | 13+13                                                                                                                                                                                                                                               |                       |                       | 26+13                  |                        |
| Max. PV I <sub>SC</sub> (A)          | 17+17                                                                                                                                                                                                                                               |                       |                       | 34+17                  |                        |
| No.of MPP Trackers                   | 2                                                                                                                                                                                                                                                   |                       |                       |                        |                        |
| No.of Strings per MPP Tracker        | 1                                                                                                                                                                                                                                                   |                       |                       | 2+1                    |                        |
| AC Output Data                       |                                                                                                                                                                                                                                                     |                       |                       |                        |                        |
| Rated AC Output and UPS Power (W)    | 5000                                                                                                                                                                                                                                                | 6000                  | 8000                  | 10000                  | 12000                  |
| Max. AC Output Power (W)             | 5500                                                                                                                                                                                                                                                | 6600                  | 8800                  | 11000                  | 13200                  |
| AC Output Rated Current (A)          | 7.6/7.2                                                                                                                                                                                                                                             | 9.1/8.7               | 12.1/11.6             | 15.2/14.5              | 18.2/17.4              |
| Max. AC Current (A)                  | 11.4/10.9                                                                                                                                                                                                                                           | 13.6/13               | 18.2/17.4             | 22.7/21.7              | 27.3/26.1              |
| Max. Continuous AC Passthrough (A)   | 45                                                                                                                                                                                                                                                  |                       |                       |                        |                        |
| Peak Power (off grid)                | 2 time of rated power, 10 S                                                                                                                                                                                                                         |                       |                       |                        |                        |
| Power Factor                         | 0.8 leading to 0.8 lagging                                                                                                                                                                                                                          |                       |                       |                        |                        |
| Output Frequency and Voltage         | 50/60Hz; 3L/N/PE 220/380, 230/400Vac                                                                                                                                                                                                                |                       |                       |                        |                        |
| Grid Type                            | Three Phase                                                                                                                                                                                                                                         |                       |                       |                        |                        |
| DC injection current (mA)            | THD<3% (Linear load<1.5%)                                                                                                                                                                                                                           |                       |                       |                        |                        |
| Efficiency                           |                                                                                                                                                                                                                                                     |                       |                       |                        |                        |
| Max. Efficiency                      | 97.60%                                                                                                                                                                                                                                              |                       |                       |                        |                        |
| Euro Efficiency                      | 97.00%                                                                                                                                                                                                                                              |                       |                       |                        |                        |
| MPPT Efficiency                      | 99.90%                                                                                                                                                                                                                                              |                       |                       |                        |                        |
| Protection                           |                                                                                                                                                                                                                                                     |                       |                       |                        |                        |
| Integrated                           | PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection |                       |                       |                        |                        |
| Output Over Voltage Protection       | DC Type II/AC Type III                                                                                                                                                                                                                              |                       |                       |                        |                        |
| Certifications and Standards         |                                                                                                                                                                                                                                                     |                       |                       |                        |                        |
| Grid Regulation                      | VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150                                                                                                                                     |                       |                       |                        |                        |
| Safety EMC / Standard                | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2                                                                                                                                                                                              |                       |                       |                        |                        |
| General Data                         |                                                                                                                                                                                                                                                     |                       |                       |                        |                        |
| Operating Temperature Range (°C)     | -40~60°C, >45°C derating                                                                                                                                                                                                                            |                       |                       |                        |                        |
| Cooling                              | Smart cooling                                                                                                                                                                                                                                       |                       |                       |                        |                        |
| Noise (dB)                           | <45 dB                                                                                                                                                                                                                                              |                       |                       |                        |                        |
| Communication with BMS               | RS485; CAN                                                                                                                                                                                                                                          |                       |                       |                        |                        |
| Weight (kg)                          | 33.6                                                                                                                                                                                                                                                |                       |                       |                        |                        |
| Size (mm)                            | 422W x 699.3H x279D                                                                                                                                                                                                                                 |                       |                       |                        |                        |
| Protection Degree                    | IP65                                                                                                                                                                                                                                                |                       |                       |                        |                        |
| Installation Style                   | Wall-mounted                                                                                                                                                                                                                                        |                       |                       |                        |                        |
| Warranty                             | 5 years                                                                                                                                                                                                                                             |                       |                       |                        |                        |