



# Three Phase Hybrid Inverter

SUN-25/29.9/30K-SG02HP3-EU-AM3



- 100** 100% unbalanced output, 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
- 75** Max. charging/discharging current of 75A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

**Deye**

Stock Code: 605117.SH

| Model   | SUN-25K-SG02HP3<br>-EU-AM3  | SUN-29.9K-SG02HP3<br>-EU-AM3 | SUN-30K-SG02HP3<br>-EU-AM3 |
|---|---|------------------------------|----------------------------|
| <b>Battery Input Data</b>                         |   |                              |                            |
| Battery Type                                      | Lithium-ion   |                              |                            |
| Battery Voltage Range (V)                         | 160-700   |                              |                            |
| Max. Charging Current (A)                         | 75  |                              |                            |
| Max. Discharging Current (A)                      | 75  |                              |                            |
| Charging Strategy for Li-ion Battery              | Self-adaption to BMS  |                              |                            |
| Number of Battery Input                           | 1   |                              |                            |
| <b>PV String Input Data</b>                       |   |                              |                            |
| Max. PV Access Power (W)                          | 50000   | 59800                        | 60000                      |
| Max. PV Input Power (W)                           | 40000   | 47840                        | 48000                      |
| Max. PV Input Voltage (V)                         | 1000  |                              |                            |
| Start-up Voltage (V)                              | 180   |                              |                            |
| MPPT Voltage Range (V)                            | 150-850   |                              |                            |
| Rated PV Input Voltage (V)                        | 600   |                              |                            |
| Max. Operating PV Input Current (A)               | 36+36+36  |                              |                            |
| Max. Input Short-Circuit Current (A)              | 54+54+54  |                              |                            |
| No. of MPP Trackers/No. of Strings MPP Tracker    | 3/2+2+2   |                              |                            |
| <b>AC Input/Output Data</b>                       |   |                              |                            |
| Rated AC Input/Output Active Power (W)            | 25000   | 29900                        | 30000                      |
| Max. AC Input/Output Apparent Power (VA)          | 27500   | 29900                        | 33000                      |
| Rated AC Input/Output Current (A)                 | 37.9/36.3   | 45.4/43.4                    | 45.5/43.5                  |
| Max. AC Input/Output Current (A)                  | 41.7/39.9   | 45.4/43.4                    | 50/47.9                    |
| Max. Continuous AC Passthrough (grid to load) (A) | 80  |                              |                            |
| Peak Power (off-grid) (W)                         | 1.5 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  |                              |                            |
| <b>Efficiency</b>                                 |   |                              |                            |
| Max. Efficiency                                   | 98.50%  |                              |                            |
| Euro Efficiency                                   | 98.0%   |                              |                            |
| MPPT Efficiency                                   | >99%  |                              |                            |
| <b>Equipment Protection</b>                       |   |                              |                            |
| 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)  |                              |                            |
| <b>Interface</b>                                  |   |                              |                            |
| LCD/LED Display                                   | LCD+LED   |                              |                            |
| Communication Interface                           | RS485/RS232/CAN   |                              |                            |
| Monitor Mode                                      | GPRS/WIFI/Bluetooth/4G/LAN(optional)  |                              |                            |
| <b>General Data</b>                               |   |                              |                            |
| 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)                           | 448x688x 270(Excluding Connectors and Brackets)   |                              |                            |
| Weight (kg)                                       | 46  |                              |                            |
| Type of 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, 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  |                              |                            |