

# Three Phase Hybrid Inverter

SUN- 6 / 8 / 10 / 12 / 15 / 20 K-SG01HP3-EU-AM2



- 100** 100% unbalanced output, each phase; Max. output up to **50%** rated power
- DC** DC couple and AC couple to retrofit existing solar system
- 10** Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 37** Max. charging/discharging current of 37A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
- EG** Support storing energy from diesel generator

## Technical Data

| Model   | SUN-6K-SG01HP3-EU-AM2   | SUN-8K-SG01HP3-EU-AM2 | SUN-10K-SG01HP3-EU-AM2 | SUN-12K-SG01HP3-EU-AM2 | SUN-15K-SG01HP3-EU-AM2 | SUN-20K-SG01HP3-EU-AM2 |
|---|---|-----------------------|------------------------|------------------------|------------------------|------------------------|
| <b>Battery Input Data</b>                         |   |                       |                        |                        |                        |                        |
| Battery Type                                      | Li-Ion  |                       |                        |                        |                        |                        |
| Battery Voltage Range (V)                         | 160~700   |                       |                        |                        |                        |                        |
| Max. Charging Current (A)                         | 37  |                       |                        |                        |                        |                        |
| Max. Discharging Current (A)                      | 37  |                       |                        |                        |                        |                        |
| Number of battery input                           | 1   |                       |                        |                        |                        |                        |
| Charging Strategy for Li-Ion Battery              | Self-adaption to BMS  |                       |                        |                        |                        |                        |
| <b>PV String Input Data</b>                       |   |                       |                        |                        |                        |                        |
| Max. DC Input Power (W)                           | 7800  | 10400                 | 13000                  | 15600                  | 19500                  | 26000                  |
| Max. DC Input Voltage (V)                         | 1000  |                       |                        |                        |                        |                        |
| Start-up Voltage (V)                              | 180   |                       |                        |                        |                        |                        |
| MPPT Range (V)                                    | 150-850   |                       |                        |                        |                        |                        |
| Full Load DC Voltage Range (V)                    | 195-850   | 260-850               | 325-850                | 340-850                | 423-850                | 500-850                |
| Rated DC Input Voltage (V)                        | 600   |                       |                        |                        |                        |                        |
| PV Input Current (A)                              | 20+20   |                       |                        | 26+20                  |                        | 26+26                  |
| Max. PV I <sub>SC</sub> (A)                       | 23+23   |                       |                        | 32+23                  |                        | 32+32                  |
| No. of MPP Trackers                               | 2   |                       |                        |                        |                        |                        |
| No. of Strings per MPP Tracker                    | 1   |                       | 2+1                    |                        | 2                      |                        |
| <b>AC Output Data</b>                             |   |                       |                        |                        |                        |                        |
| Rated AC Output and UPS Power (W)                 | 6000  | 8000                  | 10000                  | 12000                  | 15000                  | 20000                  |
| Max. AC Output Power (W)                          | 6600  | 8800                  | 11000                  | 13200                  | 16500                  | 22000                  |
| AC Output Rated Current (A)                       | 9.1   | 12.2                  | 15.2                   | 18.2                   | 22.8                   | 30.3                   |
| Max. AC Current (A)                               | 13  | 18                    | 22                     | 25                     | 30                     | 35                     |
| Max. Continuous AC Passthrough (A)                | 80  |                       |                        |                        |                        |                        |
| Peak Power (off grid)                             | 1.5 time of rated power, 10 S   |                       |                        |                        |                        |                        |
| Generator input/Smart load /AC couple current (A) | 9.1 / 80 / 9.1  | 12.2 / 80 / 12.2      | 15.2 / 80 / 15.2       | 18.2 / 80 / 18.2       | 22.8 / 80 / 22.8       | 30.3 / 80 / 30.3       |
| 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)                         | <0.5%I <sub>n</sub>   |                       |                        |                        |                        |                        |
| <b>Efficiency</b>                                 |   |                       |                        |                        |                        |                        |
| Max. Efficiency                                   | 97.60%  |                       |                        |                        |                        |                        |
| Euro Efficiency                                   | 97.00%  |                       |                        |                        |                        |                        |
| MPPT Efficiency                                   | 99.90%  |                       |                        |                        |                        |                        |
| <b>Protection</b>                                 |   |                       |                        |                        |                        |                        |
| 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  |                       |                        |                        |                        |                        |
| <b>Certifications and Standards</b>               |   |                       |                        |                        |                        |                        |
| Grid Regulation                                   | EN50549, AS4777.2:2015, VDE0126-1-1, IEC61727, VDEN4105-2018, G99   |                       |                        |                        |                        |                        |
| Safety EMC / Standard                             | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2  |                       |                        |                        |                        |                        |
| <b>General Data</b>                               |   |                       |                        |                        |                        |                        |
| Operating Temperature Range ( )                   | -40~60°C, >45°C derating  |                       |                        |                        |                        |                        |
| Cooling   | Smart cooling   |                       |                        |                        |                        |                        |
| Noise (dB)  | <45 dB  |                       |                        |                        |                        |                        |
| Communication with BMS                            | RS485; CAN  |                       |                        |                        |                        |                        |
| Weight (kg)                                       | 30.5  |                       |                        |                        |                        |                        |
| Size (mm)   | 408W×638H×237D  |                       |                        |                        |                        |                        |
| Protection Degree                                 | IP65  |                       |                        |                        |                        |                        |
| Installation Style                                | Wall-mounted  |                       |                        |                        |                        |                        |
| Warranty  | 5 years   |                       |                        |                        |                        |                        |