

# Split Phase Hybrid Inverter

SUN-8/9/10/12K-SG01LP2-US-AM2  
SUN-15K-SG01LP2-US-AM3



## Intuitive

- Colorful touch LCD, IP65 protection degree



## Intelligent

- 6 time periods for battery charging/discharging



## Flexible

- AC couple to retrofit existing solar system
- Max. 16 pcs parallel for on-grid and off-grid operation; support multiple batteries parallel



## Reliable

- Max. charging/discharging current of 275A
- Support storing energy from diesel generator

| Model                                              | SUN-8K-SG01LP2<br>-US-AM2                                                                                                                                                                                                                                                                                                              | SUN-9K-SG01LP2<br>-US-AM2 | SUN-10K-SG01LP2<br>-US-AM2 | SUN-12K-SG01LP2<br>-US-AM2 | SUN-15K-SG01LP2<br>-US-AM3 |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------|----------------------------|----------------------------|
| Battery Input Data                                 |                                                                                                                                                                                                                                                                                                                                        |                           |                            |                            |                            |
| Battery Type                                       | Lead-acid or Lithium-ion                                                                                                                                                                                                                                                                                                               |                           |                            |                            |                            |
| Battery Voltage Range (V)                          | 40-60                                                                                                                                                                                                                                                                                                                                  |                           |                            |                            |                            |
| Max. Charging/Discharging Current (A)              | 180                                                                                                                                                                                                                                                                                                                                    | 180                       | 275                        | 275                        | 275                        |
| Charging Strategy for Li-ion Battery               | Self-adaption to BMS                                                                                                                                                                                                                                                                                                                   |                           |                            |                            |                            |
| Number of Battery Input                            | 2                                                                                                                                                                                                                                                                                                                                      |                           |                            |                            |                            |
| PV String Input Data                               |                                                                                                                                                                                                                                                                                                                                        |                           |                            |                            |                            |
| Max. PV Input Power (W)                            | 10400                                                                                                                                                                                                                                                                                                                                  | 11700                     | 13000                      | 15600                      | 19500                      |
| Max. PV Input Voltage (V)                          | 500                                                                                                                                                                                                                                                                                                                                    |                           |                            |                            |                            |
| Start-up Voltage (V)                               | 150                                                                                                                                                                                                                                                                                                                                    |                           |                            |                            |                            |
| MPPT Voltage Range (V)                             | 175-425                                                                                                                                                                                                                                                                                                                                |                           |                            |                            |                            |
| Rated PV Input Voltage (V)                         | 370                                                                                                                                                                                                                                                                                                                                    |                           |                            |                            |                            |
| Max. Operating PV Input Current (A)                | 26+26                                                                                                                                                                                                                                                                                                                                  |                           |                            |                            | 26+26+26                   |
| Max. Input Short-Circuit Current (A)               | 44+44                                                                                                                                                                                                                                                                                                                                  |                           |                            |                            | 44+44+44                   |
| No. of MPP Trackers/<br>No. of Strings MPP Tracker | 2/2+2                                                                                                                                                                                                                                                                                                                                  |                           |                            |                            | 3/2+2+2                    |
| AC Input/Output Data                               |                                                                                                                                                                                                                                                                                                                                        |                           |                            |                            |                            |
| Rated AC Input/Output Active Power (W)             | 8000                                                                                                                                                                                                                                                                                                                                   | 9000                      | 10000                      | 12000                      | 15000                      |
| Max. AC Input/Output Apparent Power (VA)           | 8000                                                                                                                                                                                                                                                                                                                                   | 9000                      | 10000                      | 12000                      | 15000                      |
| Rated AC Input/Output Current (A)                  | 33.4                                                                                                                                                                                                                                                                                                                                   | 37.5                      | 41.7                       | 50                         | 62.5                       |
| Max. AC Input/Output Current (A)                   | 33.4                                                                                                                                                                                                                                                                                                                                   | 37.5                      | 41.7                       | 50                         | 62.5                       |
| Max. Continuous AC Passthrough (grid to load) (A)  | 200                                                                                                                                                                                                                                                                                                                                    |                           |                            |                            |                            |
| Peak Power (off-grid) (W)                          | 2 times of rated power, 10s                                                                                                                                                                                                                                                                                                            |                           |                            |                            |                            |
| Power Factor Adjustment Range                      | 0.9 leading to 0.9 lagging                                                                                                                                                                                                                                                                                                             |                           |                            |                            |                            |
| Rated input/output voltage                         | 120/240,120/208V 0.88Un<U<1.1Un 2L+N+PE                                                                                                                                                                                                                                                                                                |                           |                            |                            |                            |
| Rated Input/Output Grid Frequency/Range(Hz)        | 60/55-65                                                                                                                                                                                                                                                                                                                               |                           |                            |                            |                            |
| Total Current Harmonic Distortion THDi             | <3% (of nominal power)                                                                                                                                                                                                                                                                                                                 |                           |                            |                            |                            |
| DC Injection Current                               | <0.5% In                                                                                                                                                                                                                                                                                                                               |                           |                            |                            |                            |
| Efficiency                                         |                                                                                                                                                                                                                                                                                                                                        |                           |                            |                            |                            |
| Max. Efficiency                                    | 97.6%                                                                                                                                                                                                                                                                                                                                  |                           |                            |                            |                            |
| Euro Efficiency                                    | 97%                                                                                                                                                                                                                                                                                                                                    |                           |                            |                            |                            |
| 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 (AFCI) (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection |                           |                            |                            |                            |
| Surge Protection Level                             | TYPE II(DC), TYPE II(AC)                                                                                                                                                                                                                                                                                                               |                           |                            |                            |                            |
| Interface                                          |                                                                                                                                                                                                                                                                                                                                        |                           |                            |                            |                            |
| LCD/LED Display                                    | LCD                                                                                                                                                                                                                                                                                                                                    |                           |                            |                            |                            |
| Communication Interface                            | WIFI, RS485                                                                                                                                                                                                                                                                                                                            |                           |                            |                            |                            |
| General Data                                       |                                                                                                                                                                                                                                                                                                                                        |                           |                            |                            |                            |
| Operating Temperature Range (°C)                   | -40 to +60°C, >45°C Derating                                                                                                                                                                                                                                                                                                           |                           |                            |                            |                            |
| Permissible Ambient Humidity                       | 0-100%                                                                                                                                                                                                                                                                                                                                 |                           |                            |                            |                            |
| Permissible Altitude                               | 2000m                                                                                                                                                                                                                                                                                                                                  |                           |                            |                            |                            |
| Noise (dB)                                         | <30                                                                                                                                                                                                                                                                                                                                    |                           |                            |                            |                            |
| Ingress Protection(IP) Rating                      | TYPE 3R                                                                                                                                                                                                                                                                                                                                |                           |                            |                            |                            |
| Inverter Topology                                  | Non-Isolated (solar), Isolated (battery)                                                                                                                                                                                                                                                                                               |                           |                            |                            |                            |
| Over Voltage Category                              | OVC II(DC), OVC III(AC)                                                                                                                                                                                                                                                                                                                |                           |                            |                            |                            |
| Cabinet Size (WxHxD mm)                            | 501×807×300 (Excluding Connectors and Brackets)                                                                                                                                                                                                                                                                                        |                           |                            |                            |                            |
| Weight (kg)                                        | 51.5                                                                                                                                                                                                                                                                                                                                   |                           |                            |                            |                            |
| Type of Cooling                                    | Intelligent Air Cooling                                                                                                                                                                                                                                                                                                                |                           |                            |                            |                            |
| Warranty                                           | 5 Years / Up to 10 Years*                                                                                                                                                                                                                                                                                                              |                           |                            |                            |                            |
| Grid Regulation                                    | IEEE 1547.1, SRD V2.0                                                                                                                                                                                                                                                                                                                  |                           |                            |                            |                            |
| Safety / EMC Standard                              | FCC, UL 1741                                                                                                                                                                                                                                                                                                                           |                           |                            |                            |                            |