

# Three Phase Hybrid Inverter

SUN-15K-SG01HP3-AU-AM2



## Efficient

- High voltage battery, higher efficiency



## Intelligent

- 6 time periods for battery charging/discharging



## Flexible

- AC couple to retrofit existing solar system
- Max. 10 pcs parallel for on-grid and off-grid operation; support multiple batteries parallel



## Reliable

- Max. charging/discharging current of 37A
- Support storing energy from diesel generator
- 100% unbalanced output

| Model                                              |                                                                                                                                                                                                                                                                                                                                                                | SUN-15K-SG01HP3-AU-AM2 |              |         |  |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------|---------|--|
| Battery Input Data                                 |                                                                                                                                                                                                                                                                                                                                                                |                        |              |         |  |
| Battery Type                                       | Lithium-ion                                                                                                                                                                                                                                                                                                                                                    |                        |              |         |  |
| Battery Voltage Range (V)                          | 160-700                                                                                                                                                                                                                                                                                                                                                        |                        |              |         |  |
| Max. Charging/Discharging Current (A)              | 37                                                                                                                                                                                                                                                                                                                                                             |                        |              |         |  |
| Rated Battery power (W)                            | 15000                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| Charging Strategy for Li-ion Battery               | Self-adaption to BMS                                                                                                                                                                                                                                                                                                                                           |                        |              |         |  |
| Number of Battery Input                            | 1                                                                                                                                                                                                                                                                                                                                                              |                        |              |         |  |
| PV String Input Data                               |                                                                                                                                                                                                                                                                                                                                                                |                        |              |         |  |
| Max. PV access power (W)                           | 30000                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| Max. PV Input Power (W)                            | 22500                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| 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)                | 26+20                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| Max. Input Short-Circuit Current (A)               | 39+30                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| No. of MPP Trackers/<br>No. of Strings MPP Tracker | 2/2+1                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| AC Input/Output Data                               |                                                                                                                                                                                                                                                                                                                                                                |                        |              |         |  |
| Rated AC Input/Output Active Power (W)             | 15000                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| Max. AC Input/Output Apparent Power (VA)           | 15000                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| Rated AC Input/Output Current (A)                  | 21.8                                                                                                                                                                                                                                                                                                                                                           |                        |              |         |  |
| Max. AC Input/Output Current (A)                   | 21.8                                                                                                                                                                                                                                                                                                                                                           |                        |              |         |  |
| 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                         | 230/400V                                                                                                                                                                                                                                                                                                                                                       | 240/415V               | 0.85Un-1.1Un | 3L+N+PE |  |
| Rated Input/Output Grid Frequency/Range(Hz)        | 50/45-55                                                                                                                                                                                                                                                                                                                                                       |                        |              |         |  |
| Total Current Harmonic Distortion THDi             | <3%                                                                                                                                                                                                                                                                                                                                                            |                        |              |         |  |
| DC Injection Current                               | <0.5% In                                                                                                                                                                                                                                                                                                                                                       |                        |              |         |  |
| Generator Data                                     |                                                                                                                                                                                                                                                                                                                                                                |                        |              |         |  |
| Nominal Input Voltage (V)                          | 230/400V 240/415V                                                                                                                                                                                                                                                                                                                                              |                        |              |         |  |
| Rated Input Current (A)                            | 80                                                                                                                                                                                                                                                                                                                                                             |                        |              |         |  |
| Power Factor                                       | 0.8 leading-0.8 lagging                                                                                                                                                                                                                                                                                                                                        |                        |              |         |  |
| Frequency                                          | 50Hz                                                                                                                                                                                                                                                                                                                                                           |                        |              |         |  |
| Backup Data                                        |                                                                                                                                                                                                                                                                                                                                                                |                        |              |         |  |
| Nominal Output Voltage (V)                         | 230/400V 240/415V                                                                                                                                                                                                                                                                                                                                              |                        |              |         |  |
| Rated Output Current (A)                           | 21.8                                                                                                                                                                                                                                                                                                                                                           |                        |              |         |  |
| Rated Apparent Power (VA)                          | 15000                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| Power Factor                                       | 0.8 leading-0.8 lagging                                                                                                                                                                                                                                                                                                                                        |                        |              |         |  |
| Frequency                                          | 50Hz                                                                                                                                                                                                                                                                                                                                                           |                        |              |         |  |
| Efficiency                                         |                                                                                                                                                                                                                                                                                                                                                                |                        |              |         |  |
| Max. Efficiency                                    | 97.6%                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| Euro Efficiency                                    | 97.0%                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| 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(Active Frequency shift), 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, CAN                                                                                                                                                                                                                                                                                                                                               |                        |              |         |  |
| General Data                                       |                                                                                                                                                                                                                                                                                                                                                                |                        |              |         |  |
| Operating Temperature Range (°C)                   | -40 to +60°C, >45°C Derating                                                                                                                                                                                                                                                                                                                                   |                        |              |         |  |
| Permissible Ambient Humidity                       | 0-100%                                                                                                                                                                                                                                                                                                                                                         |                        |              |         |  |
| Permissible Altitude                               | 2000m                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| Noise (dB)                                         | ≤55                                                                                                                                                                                                                                                                                                                                                            |                        |              |         |  |
| Ingress Protection(IP) Rating                      | IP 65                                                                                                                                                                                                                                                                                                                                                          |                        |              |         |  |
| Protection Level                                   | Class I                                                                                                                                                                                                                                                                                                                                                        |                        |              |         |  |
| Inverter Topology                                  | Non-Isolated                                                                                                                                                                                                                                                                                                                                                   |                        |              |         |  |
| Over Voltage Category                              | OVC II(DC), OVC III(AC)                                                                                                                                                                                                                                                                                                                                        |                        |              |         |  |
| Cabinet Size (WxHxD mm)                            | 408×638×237 (Excluding Connectors and Brackets)                                                                                                                                                                                                                                                                                                                |                        |              |         |  |
| Weight (kg)                                        | 30.5                                                                                                                                                                                                                                                                                                                                                           |                        |              |         |  |
| Type of Cooling                                    | Intelligent Air Cooling                                                                                                                                                                                                                                                                                                                                        |                        |              |         |  |
| Warranty                                           | 10 Years                                                                                                                                                                                                                                                                                                                                                       |                        |              |         |  |
| Grid Regulation                                    | AS/NZS 4777.2                                                                                                                                                                                                                                                                                                                                                  |                        |              |         |  |
| Safety / EMC Standard                              | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2                                                                                                                                                                                                                                                                                                         |                        |              |         |  |