

Hybrid Inverter

SUN-SL-HP6K-A1



Overview

SUN-SL-HP6K-A1 is a versatile hybrid inverter that integrates the functions of a bidirectional inverter, solar charger, and battery charger, offering portable uninterruptible power supply support. It supports smart system control, various working modes, and autonomous energy management.

Features

- Supports low-voltage battery systems for enhanced safety.
- Supports 150% PV oversizing.
- Supports 110% AC overloading output.
- Supports 150% backup power output for 10 seconds.
- Supports 170% AC input.
- Battery charge/discharge current up to 120A.
- 10ms EPS switch time.

- Supports smart load management.
- Supports parallel operation with up to 5 inverters (to be launched in 2025).
- Compatible with grid voltage or diesel generator power supply (to be launched in 2025).
- Supports overload protection, overtemperature protection, and short-circuit protection.
- Allows to disable feed-in, meeting regulation requirements of different regions.
- Supports remote monitoring on an app via Wi-Fi connection.
- IP66 protection, allows for outdoor use.

Specifications

| SUN-SL-HP6K-A1 | |
|--------------------------------------|------------------------|
| PV String Input Data | Description |
| Max. PV Input Power | 9000W |
| Max. PV Input Voltage | 600V |
| Rated PV Input Voltage | 360V |
| Start-up Voltage | 120V |
| MPPT Voltage Range | 100~550V |
| Full Load MPPT Voltage Range | 280~500V |
| Max. PV Input Current | 16/16A |
| Max. DC Short Circuit Current | 20/20A |
| No.of MPPT Trackers | 2 |
| No.of Strings Per MPPT | 1/1 |
| Battery Input Data | Description |
| Battery Type | Li-ion |
| Battery Voltage Range | 40~60V |
| Max. Charging Current | 120A |
| Max. Discharging Current | 120A |
| No.of Battery Input | 1 |
| AC input/output data(On-grid) | Description |
| Rated AC Output Power | 6000W |
| Max. AC Output Apparent Power | 6600VA |
| Grid Type | Single Phase |
| Rated AC Voltage | 220V/230V/240V, L/N/PE |
| Rated AC Frequency | 50/60Hz |
| Rated AC Output Current | 27.3/26.1/25A |

| | |
|--------------------------------------|----------------------------|
| Max. AC Output Current | 30/28.7/27.5A |
| Power Factor | 0.8 leading to 0.8 lagging |
| THDi (@Rated Power) | <3% |
| Max. AC Power From Grid | 10000VA |
| Max. Current From Grid | 45.5/43.5/41.7A |
| AC Output Data (Back-up) | Description |
| Rated Output Power | 6000W |
| Max. Output Apparent Power | 6600VA |
| Peak Output Apparent Power | 7200W@60s, 9000W@10s |
| Rated Output Voltage | 230V, L/N/PE |
| Rated Output Frequency | 50/60Hz |
| Rated Output Current | 26.1A |
| Max Output Current | 28.7A |
| Switch Time | 10ms |
| THDv (@Linear Load) | <3% |
| Protection | Description |
| Anti-islanding Protection | Integrated |
| PV Input Reverse Polarity Protection | Integrated |
| Insulation Resistor Detection | Integrated |
| Ground Fault Monitoring | Integrated |
| Residual Current Monitoring (GFCI) | Integrated |
| AC Overcurrent Protection | Integrated |
| AC Short Circuit Protection | Integrated |
| AC Overvoltage Protection | Integrated |
| DC Switch (Solar) | Integrated |
| AFCI | Optional |
| Remote Shutdown | Integrated |
| Thermal Protection | Integrated |
| DC Surge Protection | DC Type II / AC Type III |
| AC Surge Protection | DC Type II / AC Type III |
| Working Efficiency | Description |
| Max. Efficiency | 97.23% |
| Euro Efficiency | 96.59% |
| MPPT Efficiency | >99% |
| General Data | Description |
| User Interface | LED & APP |
| Communication With BMS | CAN |
| Communication With Portal | WiFi+LAN/4G(Optional) |
| Dimension(W×D×H mm) | 462*208*511mm |

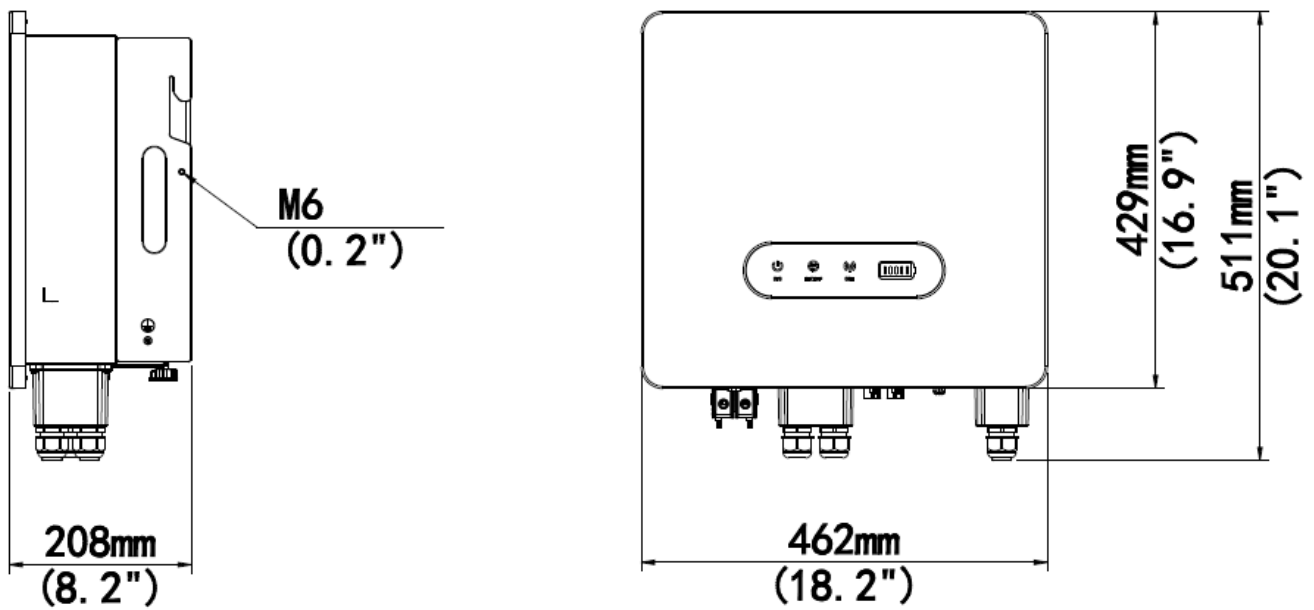
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|-------------------------------------|-----------------------------------------------------------------------------|
| Weight | 23.8kg |
| Self-consumption At Night | <10W |
| Certifications and Standards | Description |
| Grid Connection Standard | NTS TypeA, UNE 217002, UNE_217001, EN 50549-1&-10, G99, G98, G100, CEI 0-21 |
| Safety Standard | IEC62109-1&2 |
| EMC Standard | EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN301 489-1/-17 |
| Operating Conditions | Description |
| Operating Temperature Range | -25~60 °C |
| Storage Temperature Range | -25~85 °C |
| Operation Relative Humidity | ≤95%, RH |
| Max. Operation Altitude | 3000m(>2000m power derating) |
| Ingress Protection | IP66 |
| Cooling Concept | Natural Cooling |
| Installation Style | Wall-mounted |
| Noise Emission | <30dB |
| Warranty | 10 Years |

Ordering Information

| Model | Qty | Remarks |
|----------------|-----|----------------------------------------------------------------------------------|
| SUN-SL-HP6K-A1 | 1 | Hybrid inverter (single-phase, low voltage, on-grid/off-grid, 6kW AC output, EU) |

Dimensions

Dimensions: 462(W)*208(D)*511(H) mm



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Product specifications and availability are subject to change without notice.