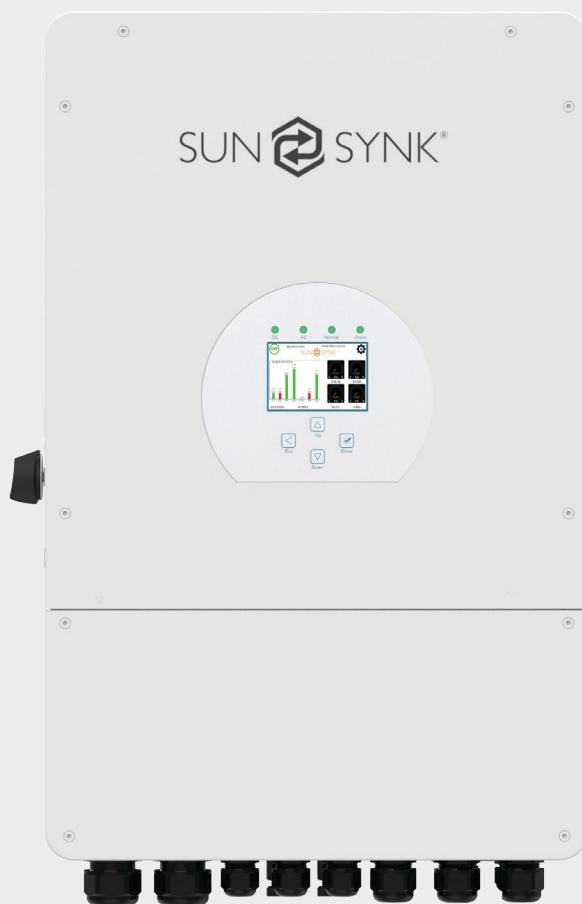




# SINGLE-PHASE HYBRID INVERTER



## DATASHEET

SUNSYNK-8K-SG01LP1 / SUNSYNK-8K-SG02LP1

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| Model                                | SUNSYNK-8K-SG01LP1 / SUNSYNK-8K-SG02LP1                                                                                                                                                                                                                   |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Battery Input Data</b>            |                                                                                                                                                                                                                                                           |
| Battery Type                         | Lead-acid or Li-Ion                                                                                                                                                                                                                                       |
| Battery Voltage Range                | 48Vd.c (40Vd.c ~ 60Vd.c)                                                                                                                                                                                                                                  |
| Max. Charging/Discharging Current    | 190Ad.c (max.)                                                                                                                                                                                                                                            |
| Charging Curve                       | 3 Stages / Equalization                                                                                                                                                                                                                                   |
| External Temperature Sensor          | Yes                                                                                                                                                                                                                                                       |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS                                                                                                                                                                                                                                      |
| <b>PV String Input Data</b>          |                                                                                                                                                                                                                                                           |
| Max. DC Input Power                  | 10400W                                                                                                                                                                                                                                                    |
| PV Input Voltage                     | 370V (125V~500V)                                                                                                                                                                                                                                          |
| MPPT Range                           | 150~425V                                                                                                                                                                                                                                                  |
| Start-up Voltage                     | 125V                                                                                                                                                                                                                                                      |
| PV Input Current                     | 26Ad.c + 26Ad.c                                                                                                                                                                                                                                           |
| Max PV Isc                           | 44Ad.c + 44Ad.c                                                                                                                                                                                                                                           |
| No. of MPPT Trackers                 | 2                                                                                                                                                                                                                                                         |
| No. of Strings Per MPPT Tracker      | 2+2                                                                                                                                                                                                                                                       |
| <b>AC Output Data</b>                |                                                                                                                                                                                                                                                           |
| Rated AC Output and UPS Power        | 8000W                                                                                                                                                                                                                                                     |
| Max. AC Output Power                 | 8800W                                                                                                                                                                                                                                                     |
| Peak Power (off grid)                | 2 times of rated power, 10s                                                                                                                                                                                                                               |
| AC Output Rated Current              | 34.8A                                                                                                                                                                                                                                                     |
| Max. AC Current                      | 38.3A                                                                                                                                                                                                                                                     |
| Max. Continuous AC Passthrough       | 50A                                                                                                                                                                                                                                                       |
| Power Factor                         | 0.8 leading to 0.8 lagging                                                                                                                                                                                                                                |
| Output Frequency and Voltage         | 50 / 60Hz; 208Vac (2 / 3 Phase), 220/230Vac (Single Phase)                                                                                                                                                                                                |
| Grid Type                            | 2 / 3 Phase; Single Phase                                                                                                                                                                                                                                 |
| Total Harmonic Distortion (THD)      | <3% (of nominal power)                                                                                                                                                                                                                                    |
| DC current injection                 | <0.5% In                                                                                                                                                                                                                                                  |
| <b>Efficiency</b>                    |                                                                                                                                                                                                                                                           |
| Max. Efficiency                      | 97.60%                                                                                                                                                                                                                                                    |
| Euro Efficiency                      | 97.00%                                                                                                                                                                                                                                                    |
| MPPT Efficiency                      | >99%                                                                                                                                                                                                                                                      |
| <b>Protection</b>                    |                                                                                                                                                                                                                                                           |
| Integrated                           | PV Arc Fault Detection, 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                     | DC Type II / AC Type II                                                                                                                                                                                                                                   |
| Over Voltage Category                | DC Type II / AC Type III                                                                                                                                                                                                                                  |
| <b>Certifications and Standards</b>  |                                                                                                                                                                                                                                                           |
| Grid Regulation                      | EN 50549-1, AS-NZS 4777.2, NRS 097-2-1; Additional connections available upon request                                                                                                                                                                     |
| EMC/Safety Regulation                | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2                                                                                                                                                                                                    |

### General Data

|                             |                                                          |
|-----------------------------|----------------------------------------------------------|
| Operating Temperature Range | -40~60 °C, >45 °C Derating                               |
| Cooling                     | Smart cooling                                            |
| Noise                       | <30 dB                                                   |
| Communication with BMS      | RS485; CAN                                               |
| Net Weight                  | 32kg                                                     |
| Gross Weight                | 38.5kg                                                   |
| Cabinet size                | 420W×670H×233D (Excluding connectors and brackets)       |
| Protection Degree           | IP65                                                     |
| Installation Style          | Wall-mounted                                             |
| Warranty                    | 5 years (10 years when installed with a Sunsynk battery) |



### NOTE:

#### Safe Transport and Handling of Inverter:

When transporting the equipment, use its original packaging and keep it as a complete unit. Store the product in a dry environment, avoiding direct sunlight, and maintain a temperature range between -40°C and 60°C. Since the equipment can be quite heavy, always consider its total weight when moving, transporting, or installing it, ensuring that the installation site has adequate load-bearing capacity. Transporting and installing the inverter should be carried out solely by qualified personnel.



## Contact Us

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