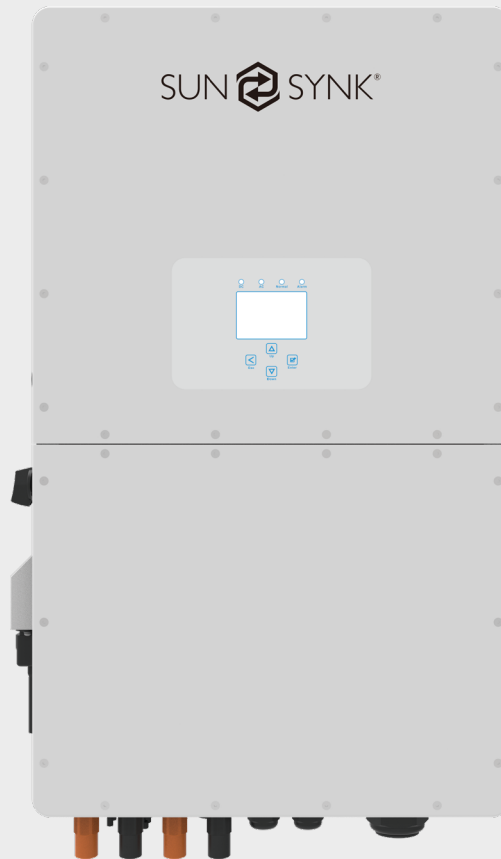




THREE-PHASE HYBRID INVERTER



DATASHEET

SUNSYNK-29.9K-SG01HP3-EU-BM3
SUNSYNK-30K-SG01HP3-EU-BM3
SUNSYNK-35K-SG01HP3-EU-BM3
SUNSYNK-40K-SG01HP3-EU-BM4
SUNSYNK-50K-SG01HP3-EU-BM4

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| Model | SUNSYNK-29.9K-SG01HP3-EU-BM3 | SUNSYNK-30K-SG01HP3-EU-BM3 | SUNSYNK-35K-SG01HP3-EU-BM3 | SUNSYNK-40K-SG01HP3-EU-BM4 | SUNSYNK-50K-SG01HP3-EU-BM4 |
|---|--|----------------------------|----------------------------|----------------------------|----------------------------|
| Battery Input Data | | | | | |
| Battery Type | Lithium-ion | | | | |
| Battery Voltage | 160-800V | | | | |
| Max. Charging Current | 50+50A | | | | |
| Max. Discharging Current | 50+50A | | | | |
| Max. Charging/Discharging Power | 29900W | 33000W | 38500W | 44000W | 55000W |
| Charging Strategy for Li-Ion Battery | Self-Adaptation to BMS | | | | |
| Number of Battery Input | 2 | | | | |
| PV String Input Data¹ | | | | | |
| Max. PV Input Power | 38870W | 39000W | 45500W | 52000W | 65000W |
| Max. PV Input Voltage | 1000V | | | | |
| Start-up Voltage | 180V | | | | |
| MPPT Range | 150-850V | | | | |
| Full Load MPPT Voltage Range | 360-850V | | 420-850 | 360-850V | 450-850V |
| Rated PV Input Voltage | 600V | | | | |
| Max. Input Short Circuit Current | 55+55+55A | | | 55+55+55+55A | |
| Max. Operating PV Input Current | 36+36+36A | | | 36+36+36+36A | |
| No. of MPPT/No. of String per MPPT | 3/2+2+2 | | | 4/2+2+2+2 | |
| Max. Inverter Backfeed Current To the Array | 0 | | | | |
| AC Output Data | | | | | |
| Rated AC Input/Output Active Power | 29900W | 30000W | 35000W | 40000W | 50000W |
| Max. AC Input/Output Apparent Power | 29900W | 33000W | 38500W | 44000W | 55000W |
| Peak Power (off-grid) | 1.5 times rated power, 10sec | | | | |
| Rated AC Input/Output Current | 45.4/43.4A | 45.5/43.5A | 53.1/50.8A | 60.7/58.0A | 75.8/72.5A |
| Max. AC Input/Output Current | 45.4/43.4A | 50/47.9A | 58.4/55.8A | 66.7/63.8A | 83.4/79.8A |
| Max. Continuous AC Passthrough (grid to load) | 200A | | | | |
| Max Three Phase Unblanaced Output Current | 60A | | | 70A | 83.4A |
| Rated Input/Output Voltage Range | 220/380V, 230/400V 0.85Un-1.1Un | | | | |
| Grid Connection Form | 3L+N+PE | | | | |
| Rated Input/Output Grid Frequency | 50Hz/45-55Hz, 60Hz/55-65Hz | | | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8lagging | | | | |
| Total Current Harmonic Distortion THDi | <3% (of nominal power) | | | | |
| DC Injection Current | <0.5% In | | | | |
| Efficiency | | | | | |
| Max. Efficiency | 97.60% | | | | |
| Euro Efficiency | 97.00% | | | | |
| MPPT Efficiency | >99.00% | | | | |
| Communication | | | | | |
| Communication Interface | RS485/RS232/CAN | | | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | | | |
| Protection | | | | | |
| Integrated | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection, DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring, Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, Overvoltage Load Drop Protection, Residual Current (RCD) Detection, Surge protection level | | | | |
| Surge Protection Level | TYPE II (DC), TYPE II (AC) | | | | |
| Certifications and Standards | | | | | |
| Grid Connection Standard | EN 50549-1, AS-NZS 4777.2, NRS 097-2-1; Additional connections available upon request | | | | |
| EMC/Safety Standards | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | |

| General Data | |
|-------------------------------|--|
| Operating Temperature Range | -40 to +60°C, >45°C Derating |
| Permissible Altitude Humidity | 0~100% |
| Permissible Altitude | 2000m |
| Noise | <65 dB |
| Ingress Protection (IP) | IP65 |
| Protective Class | Class I |
| Inverter Topolgy | Non-Isolated |
| Over Voltage Category | OVC II (DC), OVC III (AC) |
| Size | 527*894*294mm |
| Weight | 80kg |
| Warranty | 5 years (10 when installed with a Sunsynk battery) |
| Type of Cooling | Intelligent Cooling |
| Pollution degree | PD2 (Inside) PD3 (Outside) |
| Manufacturer Country | China |

[1] The inverter's minimum operating voltage (180V) refers to the threshold at which the inverter powers on, while the MPPT voltage range (150V–850V) defines the range within which the MPPTs actively track and optimize power. These values are not the same and serve different operational purposes.



NOTICE

Safe Transport and Handling of the Inverter

When transporting the equipment, always use its original packaging and keep it intact 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. As 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 only be carried out by qualified personnel.



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