Deye

**Note:**
The technical data above mentioned may be updated or revised due to product development.
The data in this brochure is subject to change without notice.
The latest datasheet and catalogue can be acquired via market@deye.com.cn


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# Leading Inverter Manufacturer

## String Inverter | Hybrid Inverter | Microinverter

Deye

# Company Profile

1 **Ningbo Deye Inverter Technology Co., Ltd**, founded in 2007 with registered capital 56 million USD, is one of the China's high-tech enterprises and a subsidiary of Deye Group. With a plant area over 600,000㎡ and complete production and testing equipment, Deye has become a major player in the global solar inverter market.

2 **Ningbo Deye Inverter Technology Co., Ltd** is dedicated to providing complete photovoltaic power system solutions, including residential and commercial power plants solutions. Also, Deye offers solar energy storage system solutions. Among them, PV grid-connected inverter power range from 1-136kW, Hybrid inverter 3kW-50kW, and microinverter 300W-2200W.

3 As a technology-oriented company, Deye has always been committing to research and develop new cutting-edge technologies to provide efficiency and reliable products. For example, Deye adopts T-type three-level topology and enhanced SVPWM algorithm to further improve the conversion efficiency by 0.7% compared with common SPWM. With frequency droop control technology, Deye string inverter is able to work with diesel generator, which greatly expands the scope of the product application.

# Milestones

## 2024

Launch of the next-generation hybrid inverters and microinverters with a fresh design.

## 2023

Cumulative shipments of hybrid inverters surpass **1 million** units.

## 2022

Launched the latest generation of **50kW** hybrid inverter, equipped with independent two-way battery terminal port.

## 2021

Deye Group was successfully listed on SSE of China in 2021, Stock Code **605117.SH**.

## 2019

By the end of 2019, with total shipments **30,000+**, Deye hybrid inverter has become Top 3 in SouthAfrica, Pakistan and **Top 1** Chinese brand in USA.

## 2017

Deye has launched first generation hybrid inverter and attracted a lot of attention with many unique features such as V/f droop control technology andbattery DC / DC topology etc...

## 2007

Founded in 2007 with registered capital of **56 million USD**.



# Core Technology

## Deye hybrid inverter 3-80kW with 208/230/240/400Vac

- Automatic switching time 4ms
- 6 time periods for battery charging/discharging
- V/f droop control, Max. 16pcs in parallel
- Supports using diesel generator to charge battery directly, ensuring system energy supply 7* 24H
- Max. conversion efficiency of 97.6%; Max. battery charge efficiency of 96.5%

# Core Features

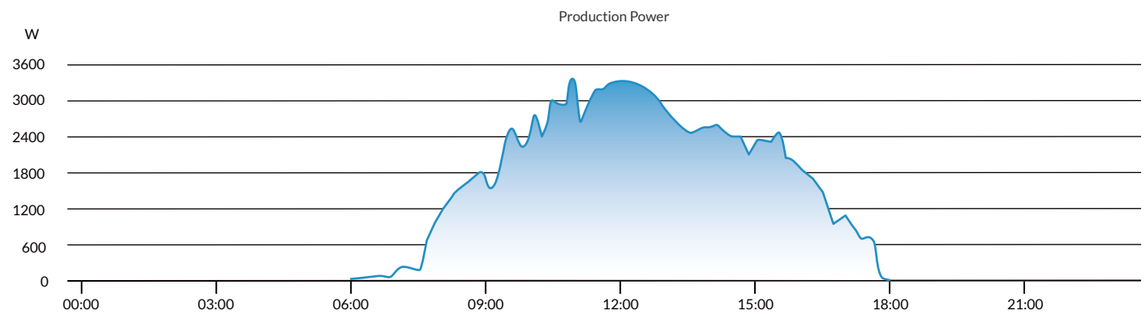
## Deye grid-connected inverter 1-136kW

- Max. 8 MPP trackers, Max. efficiency up to 98.9%
- High DC/AC ratio 1.5 times for more yields
- Wide output voltage range 277-520Vac
- Zero export application, response speed within 0.5S
- T-type three-level topology and enhanced SVPWM
- Type II DC / AC SPD, frequency droop control technology
- Max. DC input current of 16A/string, adapt to 600W solar panel
- String intelligent monitoring (optional), Ani-PID function (Optional)

# Main Highlights

## Deye microinverter 300-2250W

- Support reactive power compensation, comply with UL code.
- Module level monitoring, Max. 4 MPPTs design
- Max. DC input current 18A, adapt to 790W PV module
- Rapid shutdown function, safe and reliable
- WIFI communication
- IP67 protection degree, 15 years warranty



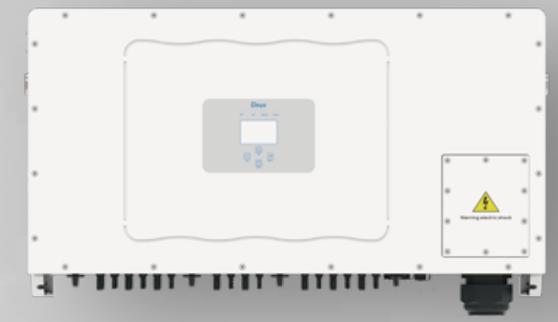

Physical Layout

Single Phase
String Inverter

Microinverter

Three Phase
String Inverter (LV)

Single Phase
Hybrid Inverter



Three Phase
String Inverter

Three Phase
Hybrid Inverter

Accessory &
monitoring

# Single Phase String Inverter

## SUN-1/1.5/2/2.5/3/K-G04

- 1 MPP tracker, Max. efficiency up to 97.5%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)
- Low start-up voltage of 80V

## Technical Data

| Model | SUN-1K-G04 | SUN-1.5K-G04 | SUN-2K-G04 | SUN-2.5K-G04 | SUN-3K-G04 |
|---|---|---|---|---|---|
| **PV String Input Data** | | | | | |
| Max. PV Input Power (kW) | 1.3 | 2 | 2.6 | 3.3 | 3.9 |
| Max. PV Input Voltage (V) | 550 | | | | |
| Start-up Voltage (V) | 80 | | | | |
| MPPT Voltage Range (V) | 70-500 | | | | |
| Rated PV Input Voltage (V) | 360 | | | | |
| Max. Operating PV Input Current (A) | 20 | | | | |
| Max. Input Short Circuit Current (A) | 30 | | | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 1/1 | | | | |
| **AC Output Data** | | | | | |
| Rated AC Output Active Power(kW) | 1 | 1.5 | 2 | 2.5 | 3 |
| Max. AC Output Apparent Power(kVA) | 1.1 | 1.65 | 2.2 | 2.75 | 3.3 |
| Rated AC Output current (A) | 4.5/4.3 | 6.8/6.5 | 9.1/8.7 | 11.4/10.9 | 13.6/13 |
| Max. AC Output Current(A) | 5/4.8 | 7.5/7.2 | 10/9.6 | 12.5/12 | 15/14.3 |
| Rated Output voltage/range (V) | 220/230 0.85Un-1.1Un | | | | |
| Grid Connection Form | L/N/PE | | | | |
| Rated Output Grid Frequency/range(Hz) | 50/45-55, 60/55-65 | | | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | | | |
| Total Current Harmonic Distortion THDi | <3% | | | | |
| DC Injection Current | <0.5%In | | | | |
| **Efficiency** | | | | | |
| Max. Efficiency | 97.3% | | | | |
| Euro Efficiency | 96.3% | | | | |
| MPPT Efficiency | >99% | | | | |
| **Equipment Protection** | | | | | |
| DC Polarity Reverse Connection Protection | Yes | | | | |
| AC Output Overcurrent Protection | Yes | | | | |
| AC Output Overvoltage Protection | Yes | | | | |
| AC Output Short Circuit Protection | Yes | | | | |
| Thermal Protection | Yes | | | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | | | |
| DC Component Monitoring | Yes | | | | |
| Ground Fault Current Monitoring | Yes | | | | |
| Arc Fault Circuit Interrupter (AFCI) | Optional | | | | |
| Power Network Monitoring | Yes | | | | |
| Island Protection Monitoring | Yes | | | | |
| Earth Fault Detection | Yes | | | | |
| Overvoltage Load Drop Protection | Yes | | | | |
| Residual Current (RCD) Detection | Yes | | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | | |
| **Interface** | | | | | |
| Communication Interface | RS485/RS232 | | | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | | | |
| **General Data** | | | | | |
| Operating Temperature Range (°C) | -25 to +65°C, >45°C Derating | | | | |
| Permissible Ambient Humidity | 0-100% | | | | |
| Permissible Altitude (m) | 2000m | | | | |
| Noise (dB) | ≤ 35 dB(A) | | | | |
| Ingress Protection(IP) Rating | IP 65 | | | | |
| Inverter Topology | Non-Isolated | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | |
| Cabinet Size ( mm) | 280W×310H×184 D (Excluding Connectors and Brackets) | | | | |
| Weight (kg) | 6.35 | | | | |
| Warranty | 5 Years | | | | |
| Type of Cooling | Natural Cooling | | | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 | | | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | |

# Single Phase String Inverter

## SUN-3.6/4.2/5/6K-G

- 2 MPP trackers, Max. efficiency up to 97.5%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)
- Low start-up voltage of 80V



## Technical Data

| Model | SUN-3.6K-G | SUN-4K-G | SUN-5K-G | SUN-6K-G |
|---|---|---|---|---|
| **PV String Input Data** | | | | |
| Max. PV Input Power (kW) | 4.7 | 5.2 | 6.5 | 7.8 |
| Max. PV Input Voltage (V) | 550 | | | |
| Start-up Voltage (V) | 80 | | | |
| MPPT Voltage Range (V) | 70-500 | | | |
| Rated PV Input Voltage (V) | 360 | | | |
| Max. Operating PV Input Current (A) | 13+13 | | | |
| Max. Input Short Circuit Current (A) | 19.5+19.5 | | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/1+1 | | | |
| **AC Output Data** | | | | |
| Rated AC Output Active Power(kW) | 3.6 | 4 | 5 | 6 |
| Max. AC Output Apparent Power(kVA) | 3.96 | 4.4 | 5.5 | 6.6 |
| Rated AC Output current (A) | 16.4/15.7 | 18.2/17.4 | 22.7/21.7 | 27.3/26.1 |
| Max. AC Output Current(A) | 18/17.2 | 20/19.1 | 25/23.9 | 30/28.7 |
| Rated Output voltage/range (V) | 220/230 0.85Un-1.1Un | | | |
| Grid Connection Form | L/N/PE | | | |
| Rated Output Grid Frequency/range(Hz) | 50/45-55, 60/55-65 | | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | | |
| Total Current Harmonic Distortion THDi | <3% | | | |
| DC Injection Current | <0.5%In | | | |
| **Efficiency** | | | | |
| Max. Efficiency | 97.3% | 97.5% | | |
| Euro Efficiency | 96.9% | 97.0% | | |
| MPPT Efficiency | >99% | | | |
| **Equipment Protection** | | | | |
| DC Polarity Reverse Connection Protection | Yes | | | |
| AC Output Overcurrent Protection | Yes | | | |
| AC Output Overvoltage Protection | Yes | | | |
| AC Output Short Circuit Protection | Yes | | | |
| Thermal Protection | Yes | | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | | |
| DC Component Monitoring | Yes | | | |
| Ground Fault Current Monitoring | Yes | | | |
| Arc Fault Circuit Interrupter (AFCI) | Optional | | | |
| Power Network Monitoring | Yes | | | |
| Island Protection Monitoring | Yes | | | |
| Earth Fault Detection | Yes | | | |
| Overvoltage Load Drop Protection | Yes | | | |
| Residual Current (RCD) Detection | Yes | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | |
| **Interface** | | | | |
| Communication Interface | RS485/RS232 | | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | | |
| **General Data** | | | | |
| Operating Temperature Range (°C) | -25 to +65°C, >45°C Derating | | | |
| Permissible Ambient Humidity | 0-100% | | | |
| Permissible Altitude (m) | 2000m | | | |
| Noise (dB) | ≤ 35 dB(A) | | | |
| Ingress Protection(IP) Rating | IP 65 | | | |
| Inverter Topology | Non-Isolated | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | |
| Cabinet Size ( mm) | 330W×323H×190D(Excluding Connectors and Brackets) | | | |
| Weight (kg) | 8 | | | |
| Warranty | 5 Years | | | |
| Type of Cooling | Natural Cooling | | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 | | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | |

# Three Phase String Inverter

## SUN-3/4/5/6/7/8/10/12/15K-G06P3-EU-AM2

- 2 MPP trackers, Max. efficiency up to 98.5%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)

## Technical Data

| Model | SUN-3K-G06 P3-EU-AM2 | SUN-4K-G06 P3-EU-AM2 | SUN-5K-G06 P3-EU-AM2 | SUN-6K-G06 P3-EU-AM2 | SUN-7K-G06 P3-EU-AM2 | SUN-8K-G06 P3-EU-AM2 | SUN-9K-G06 P3-EU-AM2 | SUN-10K-G06 P3-EU-AM2 | SUN-12K-G06 P3-EU-AM2 | SUN-15K-G06 P3-EU-AM2 |
|---|---|---|---|---|---|---|---|---|---|---|
| **PV String Input Data** | | | | | | | | | | |
| Max. PV Input Power (kW) | 4.5 | 6 | 7.5 | 9 | 10.5 | 12 | 13.5 | 15 | 18 | 22.5 |
| Max. PV Input Voltage (V) | 1100 | | | | | | | | | |
| Start-up Voltage (V) | 140 | | | | | | | | | |
| MPPT Voltage Range (V) | 120-1000 | | | | | | | | | |
| Rated PV Input Voltage (V) | 600 | | | | | | | | | |
| Max. Operating PV Input Current (A) | 13+13 | | | | | | | | | 13+26 |
| Max. Input Short Circuit Current (A) | 19.5+19.5 | | | | | | | | | 19.5+39 |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/1+1 | | | | | | | | | 2/1+2 |
| **AC Output Side** | | | | | | | | | | |
| Rated AC Output Active Power (kW) | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 15 |
| Max. AC Output Apparent Power (kVA) | 3.3 | 4.4 | 5.5 | 6.6 | 7.7 | 8.8 | 9.9 | 11 | 13.2 | 16.5 |
| Rated AC Output Current (A) | 4.6/4.4 | 6.1/5.8 | 7.6/7.3 | 9.1/8.7 | 10.7/10.2 | 12.2/11.6 | 13.7/13.1 | 15.2/14.5 | 18.2/17.4 | 22.8/21.8 |
| Max. AC Output Current (A) | 5/4.8 | 6.7/6.4 | 8.4/8 | 10/9.6 | 11.7/11.2 | 13.4/12.8 | 15/14.4 | 16.7/16 | 20/19.2 | 25/24 |
| Rated Output Voltage/Range (V) | 220/380V, 230/400V 0.85Un-1.1Un | | | | | | | | | |
| Grid Connection Form | 3L/N/PE | | | | | | | | | |
| Rated Output Grid Frequency/Range(Hz) | 50/45-55, 60/55-65 | | | | | | | | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | | | | | | | | |
| Total Current Harmonic Distortion THDi | <3% | | | | | | | | | |
| DC Injection Current | <0.5%In | | | | | | | | | |
| **Efficiency** | | | | | | | | | | |
| Max. Efficiency | 98.1% | | 98.2% | | 98.3% | | | | | 98.5% |
| Euro Efficiency | 97.5% | | 97.6% | | 97.8% | | | | | 98% |
| MPPT Efficiency | >99% | | | | | | | | | |
| **Equipment Protection** | | | | | | | | | | |
| DC Polarity Reverse Connection Protection | Yes | | | | | | | | | |
| AC Output Overcurrent Protection | Yes | | | | | | | | | |
| AC Output Overvoltage Protection | Yes | | | | | | | | | |
| AC Output Short Circuit Protection | Yes | | | | | | | | | |
| Thermal Protection | Yes | | | | | | | | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | | | | | | | | |
| DC Component Monitoring | Yes | | | | | | | | | |
| Ground Fault Current Monitoring | Yes | | | | | | | | | |
| Arc Fault Circuit Interrupter (AFCI) | Optional | | | | | | | | | |
| Power Network Monitoring | Yes | | | | | | | | | |
| Island Protection Monitoring | Yes | | | | | | | | | |
| Earth Fault Detection | Yes | | | | | | | | | |
| Overvoltage Load Drop Protection | Yes | | | | | | | | | |
| Residual Current (RCD) Detection | Yes | | | | | | | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | | | | | | | |
| **Interface** | | | | | | | | | | |
| Communication Interface | RS485/RS232 | | | | | | | | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | | | | | | | | |
| **General Data** | | | | | | | | | | |
| Operating Temperature Range (°C) | -25 to +60°C, >45°C Derating | | | | | | | | | |
| Permissible Ambient Humidity | 0-100% | | | | | | | | | |
| Permissible Altitude (m) | 4000m | | | | | | | | | |
| Noise (dB) | <45 | | | | | | | | | |
| Ingress Protection(IP) Rating | IP 65 | | | | | | | | | |
| Inverter Topology | Non-Isolated | | | | | | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | | | | | | |
| Cabinet Size (WxHxD mm) | 283×463×178 (Excluding Connectors and Brackets) | | | | | | | | | |
| Weight (kg) | 11 | | | | | | | | | |
| Warranty | 5 Years | | | | | | | | | |
| Type of Cooling | Natural Cooling | | | | | | | | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105 | | | | | | | | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | | | | | | |

# Three Phase String Inverter

## SUN-3/4/5/6/7/8/10/12/15K-G06P3-EU-AM2-P

- 2 MPP trackers, Max. efficiency up to 98.5%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)



## Technical Data

| Model | SUN-3K-G06 P3-EU-AM2 -P1 | SUN-4K-G06 P3-EU-AM2 -P1 | SUN-5K-G06 P3-EU-AM2 -P1 | SUN-6K-G06 P3-EU-AM2 -P1 | SUN-7K-G06 P3-EU-AM2 -P1 | SUN-8K-G06 P3-EU-AM2 -P1 | SUN-9K-G06 P3-EU-AM2 -P1 | SUN-10K-G06 P3-EU-AM2 -P1 | SUN-12K-G06 P3-EU-AM2 -P1 | SUN-15K-G06 P3-EU-AM2 -P1 |
|---|---|---|---|---|---|---|---|---|---|---|
| **PV String Input Data** | | | | | | | | | | |
| Max. PV Input Power (kW) | 4.5 | 6 | 7.5 | 9 | 10.5 | 12 | 13.5 | 15 | 18 | 22.5 |
| Max. PV Input Voltage (V) | 1100 | | | | | | | | | |
| Start-up Voltage (V) | 140 | | | | | | | | | |
| MPPT Voltage Range (V) | 120-1000 | | | | | | | | | |
| Rated PV Input Voltage (V) | 600 | | | | | | | | | |
| Max. Operating PV Input Current (A) | 20+20 | | | | | | | | | 20+26 |
| Max. Input Short Circuit Current (A) | 30+30 | | | | | | | | | 30+39 |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/1+1 | | | | | | | | | 2/1+2 |
| **AC Output Side** | | | | | | | | | | |
| Rated AC Output Active Power (kW) | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 15 |
| Max. AC Output Apparent Power (kVA) | 3.3 | 4.4 | 5.5 | 6.6 | 7.7 | 8.8 | 9.9 | 11 | 13.2 | 16.5 |
| Rated AC Output Current (A) | 4.6/4.4 | 6.1/5.8 | 7.6/7.3 | 9.1/8.7 | 10.7/10.2 | 12.2/11.6 | 13.7/13.1 | 15.2/14.5 | 18.2/17.4 | 22.8/21.8 |
| Max. AC Output Current (A) | 5/4.8 | 6.7/6.4 | 8.4/8 | 10/9.6 | 11.7/11.2 | 13.4/12.8 | 15/14.4 | 16.7/16 | 20/19.2 | 25/24 |
| Rated Output Voltage/Range (V) | 220/380V, 230/400V 0.85Un-1.1Un | | | | | | | | | |
| Grid Connection Form | 3L/N/PE | | | | | | | | | |
| Rated Output Grid Frequency/Range(Hz) | 50/45-55, 60/55-65 | | | | | | | | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | | | | | | | | |
| Total Current Harmonic Distortion THDi | <3% | | | | | | | | | |
| DC Injection Current | <0.5%In | | | | | | | | | |
| **Efficiency** | | | | | | | | | | |
| Max. Efficiency | 98.1% | | 98.2% | | 98.3% | | | | | 98.5% |
| Euro Efficiency | 97.5% | | 97.6% | | 97.8% | | | | | 98% |
| MPPT Efficiency | >99% | | | | | | | | | |
| **Equipment Protection** | | | | | | | | | | |
| DC Polarity Reverse Connection Protection | Yes | | | | | | | | | |
| AC Output Overcurrent Protection | Yes | | | | | | | | | |
| AC Output Overvoltage Protection | Yes | | | | | | | | | |
| AC Output Short Circuit Protection | Yes | | | | | | | | | |
| Thermal Protection | Yes | | | | | | | | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | | | | | | | | |
| DC Component Monitoring | Yes | | | | | | | | | |
| Ground Fault Current Monitoring | Yes | | | | | | | | | |
| Arc Fault Circuit Interrupter (AFCI) | Optional | | | | | | | | | |
| Power Network Monitoring | Yes | | | | | | | | | |
| Island Protection Monitoring | Yes | | | | | | | | | |
| Earth Fault Detection | Yes | | | | | | | | | |
| Overvoltage Load Drop Protection | Yes | | | | | | | | | |
| Residual Current (RCD) Detection | Yes | | | | | | | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | | | | | | | |
| **Interface** | | | | | | | | | | |
| Communication Interface | RS485/RS232 | | | | | | | | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | | | | | | | | |
| **General Data** | | | | | | | | | | |
| Operating Temperature Range (°C) | -25 to +60°C, >45°C Derating | | | | | | | | | |
| Permissible Ambient Humidity | 0-100% | | | | | | | | | |
| Permissible Altitude (m) | 4000m | | | | | | | | | |
| Noise (dB) | <45 | | | | | | | | | |
| Ingress Protection(IP) Rating | IP 65 | | | | | | | | | |
| Inverter Topology | Non-Isolated | | | | | | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | | | | | | |
| Cabinet Size (WxHxD mm) | 283×463×178 (Excluding Connectors and Brackets) | | | | | | | | | |
| Weight (kg) | 11 | | | | | | | | | |
| Warranty | 5 Years | | | | | | | | | |
| Type of Cooling | Natural Cooling | | | | | | | | | Intelligent air cooling |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105 | | | | | | | | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | | | | | | |

# Three Phase String Inverter

## SUN-18/20/25K-G04

- 2 MPP trackers, Max. efficiency up to 98.6%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)

## Technical Data

| Model | SUN-18K-G04 | SUN-20K-G04 | SUN-25K-G04 |
|---|---|---|---|
| **PV String Input Data** | | | |
| Max. PV Input Power (kW) | 23.4 | 26 | 32.5 |
| Max. PV Input Voltage (V) | 1000 | | |
| Start-up Voltage (V) | 250 | | |
| MPPT Voltage Range (V) | 200-850 | | |
| Rated PV Input Voltage (V) | 600 | | |
| Max. Operating PV Input Current (A) | 32+32 | | |
| Max. Input Short Circuit Current (A) | 48+48 | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/2+2 | | |
| **AC Output Data** | | | |
| Rated AC Output Active Power(kW) | 18 | 20 | 25 |
| Max. AC Output Apparent Power(kVA) | 19.8 | 22 | 27.5 |
| Rated AC Output current (A) | 27.3/26.1 | 30.3/29 | 37.9/36.2 |
| Max. AC Output Current(A) | 30/28.7 | 33.3/31.9 | 41.7/39.8 |
| Rated Output voltage/range (V) | 220/380V, 230/400V 0.85Un-1.1Un | | |
| Grid Connection Form | 3L/N/PE | | |
| Rated Output Grid Frequency/range(Hz) | 50/45-55, 60/55-65 | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | |
| Total Current Harmonic Distortion THDi | <3% | | |
| DC Injection Current | <0.5%In | | |
| **Efficiency** | | | |
| Max. Efficiency | 98.5% | | |
| Euro Efficiency | 98% | | |
| MPPT Efficiency | >99% | | |
| **Equipment Protection** | | | |
| DC Polarity Reverse Connection Protection | Yes | | |
| AC Output Overcurrent Protection | Yes | | |
| AC Output Overvoltage Protection | Yes | | |
| AC Output Short Circuit Protection | Yes | | |
| Thermal Protection | Yes | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | |
| DC Component Monitoring | Yes | | |
| Ground Fault Current Monitoring | Yes | | |
| Arc Fault Circuit Interrupter (AFCI) | Optional | | |
| Power Network Monitoring | Yes | | |
| Island Protection Monitoring | Yes | | |
| Earth Fault Detection | Yes | | |
| Overvoltage Load Drop Protection | Yes | | |
| Residual Current (RCD) Detection | Yes | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | |
| **Interface** | | | |
| Communication Interface | RS485/RS232 | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | |
| **General Data** | | | |
| Operating Temperature Range (°C) | -25 to +65°C, >45°C Derating | | |
| Permissible Ambient Humidity | 0-100% | | |
| Permissible Altitude (m) | 2000m | | |
| Noise (dB) | ≤ 40 dB(A) | | |
| Ingress Protection(IP) Rating | IP 65 | | |
| Inverter Topology | Non-Isolated | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | |
| Cabinet Size ( mm) | 362W×527H×222 D (Excluding Connectors and Brackets) | | |
| Weight (kg) | 20 | | |
| Warranty | 5 Years | | |
| Type of Cooling | Natural Cooling | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | |

# Three Phase String Inverter

## SUN-30/33/35/36K-G04

- 2 MPP trackers, Max. efficiency up to 98.6%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)

## Technical Data

| Model | SUN-30K-G04 | SUN-33K-G04 | SUN-35K-G04 | SUN-36K-G04 |
|---|---|---|---|---|
| **PV String Input Data** | | | | |
| Max. PV Input Power (kW) | 39 | 42.9 | 45.5 | 46.8 |
| Max. PV Input Voltage (V) | 1100 | | | |
| Start-up Voltage (V) | 250 | | | |
| MPPT Voltage Range (V) | 200-1000 | | | |
| Rated PV Input Voltage (V) | 600 | | | |
| Max. Operating PV Input Current (A) | 40+40 | | | |
| Max. Input Short Circuit Current (A) | 60+60 | | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/3+3 | | | |
| **AC Output Data** | | | | |
| Rated AC Output Active Power(kW) | 30 | 33 | 35 | 36 |
| Max. AC Output Apparent Power(kVA) | 33 | 36.3 | 38.5 | 39.6 |
| Rated AC Output current (A) | 45.5/43.5 | 50/47.8 | 53/50.7 | 54.5/52.2 |
| Max. AC Output Current(A) | 50/47.9 | 55/52.6 | 58.3/55.8 | 60/57.4 |
| Rated Output voltage/range (V) | 220/380V, 230/400V 0.85Un-1.1Un | | | |
| Grid Connection Form | 3L/N/PE | | | |
| Rated Output Grid Frequency/range(Hz) | 50/45-55, 60/55-65 | | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | | |
| Total Current Harmonic Distortion THDi | <3% | | | |
| DC Injection Current | <0.5%In | | | |
| **Efficiency** | | | | |
| Max. Efficiency | 98.6% | | | |
| Euro Efficiency | 98.1% | | | |
| MPPT Efficiency | >99% | | | |
| **Equipment Protection** | | | | |
| DC Polarity Reverse Connection Protection | Yes | | | |
| AC Output Overcurrent Protection | Yes | | | |
| AC Output Overvoltage Protection | Yes | | | |
| AC Output Short Circuit Protection | Yes | | | |
| Thermal Protection | Yes | | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | | |
| DC Component Monitoring | Yes | | | |
| Ground Fault Current Monitoring | Yes | | | |
| Arc Fault Circuit Interrupter (AFCI) | Optional | | | |
| Power Network Monitoring | Yes | | | |
| Island Protection Monitoring | Yes | | | |
| Earth Fault Detection | Yes | | | |
| Overvoltage Load Drop Protection | Yes | | | |
| Residual Current (RCD) Detection | Yes | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | |
| **Interface** | | | | |
| Communication Interface | RS485/RS232 | | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | | |
| **General Data** | | | | |
| Operating Temperature Range (°C) | -25 to +65°C, >45°C Derating | | | |
| Permissible Ambient Humidity | 0-100% | | | |
| Permissible Altitude (m) | 4000m | | | |
| Noise (dB) | ≤ 60 dB(A) | | | |
| Ingress Protection(IP) Rating | IP 65 | | | |
| Inverter Topology | Non-Isolated | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | |
| Cabinet Size ( mm) | 330W×572H×206D(Excluding Connectors and Brackets) | | | |
| Weight (kg) | 28.7 | | | |
| Warranty | 5 Years | | | |
| Type of Cooling | Natural Cooling | | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 | | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | |

# Three Phase String Inverter

## SUN-40/45/50K-G04

Max. 4 MPP trackers,
Max. efficiency up to 98.7%

Zero export application, VSG application

String intelligent monitoring (optional)

Wide output voltage range

Anti-PID function (Optional)



## Technical Data

| Model | SUN-40K-G04 | SUN-45K-G04 | SUN-50K-G04 |
|---|---|---|---|
| **PV String Input Data** | | | |
| Max. PV Input Power (kW) | 52 | 58.5 | 65 |
| Max. PV Input Voltage (V) | 1100 | | |
| Start-up Voltage (V) | 250 | | |
| MPPT Voltage Range (V) | 200-1000 | | |
| Rated PV Input Voltage (V) | 600 | | |
| Max. Operating PV Input Current (A) | 40+40+40 | | 40+40+40+40 |
| Max. Input Short Circuit Current (A) | 60+60+60 | | 60+60+60+60 |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 3/3+3+3 | | 4/3+3+3+3 |
| **AC Output Data** | | | |
| Rated AC Output Active Power(kW) | 40 | 45 | 50 |
| Max. AC Output Apparent Power(kVA) | 44 | 49.5 | 55 |
| Rated AC Output current (A) | 60.6/58 | 68.2/65.2 | 75.8/72.5 |
| Max. AC Output Current(A) | 66.7/63.8 | 75/71.7 | 83.3/79.7 |
| Rated Output voltage/range (V) | 220/380V, 230/400V 0.85Un-1.1Un | | |
| Grid Connection Form | 3L/N/PE | | |
| Rated Output Grid Frequency/range(Hz) | 50/45-55, 60/55-65 | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | |
| Total Current Harmonic Distortion THDi | <3% | | |
| DC Injection Current | <0.5%In | | |
| **Efficiency** | | | |
| Max. Efficiency | 98.7% | | |
| Euro Efficiency | 98.1% | | |
| MPPT Efficiency | >99% | | |
| **Equipment Protection** | | | |
| DC Polarity Reverse Connection Protection | Yes | | |
| AC Output Overcurrent Protection | Yes | | |
| AC Output Overvoltage Protection | Yes | | |
| AC Output Short Circuit Protection | Yes | | |
| Thermal Protection | Yes | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | |
| DC Component Monitoring | Yes | | |
| Ground Fault Current Monitoring | Yes | | |
| Arc Fault Circuit Interrupter (AFCI) | Optional | | |
| Power Network Monitoring | Yes | | |
| Island Protection Monitoring | Yes | | |
| Earth Fault Detection | Yes | | |
| Overvoltage Load Drop Protection | Yes | | |
| Residual Current (RCD) Detection | Yes | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | |
| **Interface** | | | |
| Communication Interface | RS485/RS232 | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | |
| **General Data** | | | |
| Operating Temperature Range (°C) | -25 to +65°C, >45°C Derating | | |
| Permissible Ambient Humidity | 0-100% | | |
| Permissible Altitude (m) | 4000m | | |
| Noise (dB) | < 65 dB(A) | | |
| Ingress Protection(IP) Rating | IP 65 | | |
| Inverter Topology | Non-Isolated | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | |
| Cabinet Size ( mm) | 434W×570H×243D (Excluding Connectors and Brackets) | | |
| Weight (kg) | 39 | | |
| Warranty | 5 Years | | |
| Type of Cooling | Natural Cooling | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | |

# Three Phase String Inverter

## SUN-60 K-G04P3-EU-AM4

- 4 MPP trackers, Max. efficiency up to 98.7%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)
- Type II DC/AC SPD



## Technical Data

| Model | SUN-60K-G04P3-EU-AM4 |
|---|---|
| **PV String Input Data** | |
| Max. PV Input Power (kW) | 90 |
| Max. PV Input Voltage (V) | 1100 |
| Start-up Voltage (V) | 250 |
| MPPT Voltage Range (V) | 200-1000 |
| Rated PV Input Voltage (V) | 600 |
| Max. Operating PV Input Current (A) | 40+40+40+40 |
| Max. Input Short Circuit Current (A) | 60+60+60+60 |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 4/3+3+3+3 |
| **AC Output Data** | |
| Rated AC Output Active Power(kW) | 60 |
| Max. AC Output Apparent Power(kVA) | 66 |
| Rated AC Output current (A) | 90.9/87 |
| Max. AC Output Current(A) | 100/95.7 |
| Rated Output voltage/range (V) | 220/380V, 230/400V 0.85Un-1.1Un |
| Grid Connection Form | 3L/N/PE |
| Rated Output Grid Frequency/range(Hz) | 50/45-55, 60/55-65 |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging |
| Total Current Harmonic Distortion THDi | <3% |
| DC Injection Current | <0.5%In |
| **Efficiency** | |
| Max. Efficiency | 98.7% |
| Euro Efficiency | 98.1% |
| MPPT Efficiency | >99% |
| **Equipment Protection** | |
| DC Polarity Reverse Connection Protection | Yes |
| AC Output Overcurrent Protection | Yes |
| AC Output Overvoltage Protection | Yes |
| AC Output Short Circuit Protection | Yes |
| Thermal Protection | Yes |
| DC Terminal Insulation Impedance Monitoring | Yes |
| DC Component Monitoring | Yes |
| Ground Fault Current Monitoring | Yes |
| Arc Fault Circuit Interrupter (AFCI) | Optional |
| Power Network Monitoring | Yes |
| Island Protection Monitoring | Yes |
| Earth Fault Detection | Yes |
| Overvoltage Load Drop Protection | Yes |
| Residual Current (RCD) Detection | Yes |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) |
| **Interface** | |
| Communication Interface | RS485/RS232 |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) |
| **General Data** | |
| Operating Temperature Range (°C) | -25 to +65°C, >45°C Derating |
| Permissible Ambient Humidity | 0-100% |
| Permissible Altitude (m) | 2000m |
| Noise (dB) | ≤ 50 dB(A) |
| Ingress Protection(IP) Rating | IP 65 |
| Inverter Topology | Non-Isolated |
| Over Voltage Category | OVC II(DC), OVC III(AC) |
| Cabinet Size ( mm) | 698W×613H×236.5D (Excluding Connectors and Brackets) |
| Weight (kg) | 53.7 |
| Warranty | 5 Years |
| Type of Cooling | Natural Cooling |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 |

# Three Phase String Inverter

## SUN-70/75/80/90/100/110K-G03

- Max. 6 MPP trackers, Max. efficiency up to 98.8%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)
- Type II DC/AC SPD



## Technical Data

| Model | SUN-70K-G03 | SUN-75K-G03 | SUN-80K-G03 | SUN-90K-G03 | SUN-100K-G03 | SUN-110K-G03 |
|---|---|---|---|---|---|---|
| **PV String Input Data** | | | | | | |
| Max. PV Input Power (kW) | 91 | 97.5 | 104 | 135 | 150 | 150 |
| Max. PV Input Voltage (V) | 1000 | | | | | |
| Start-up Voltage (V) | 250 | | | | | |
| MPPT Voltage Range (V) | 200-850 | | | | | |
| Rated PV Input Voltage (V) | 600 | | | | | |
| Max. Operating PV Input Current (A) | 40+40+40+40 | | | 40+40+40+40+40+40 | | |
| Max. Input Short Circuit Current (A) | 60+60+60+60 | | | 60+60+60+60+60+60 | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 4/4+4+4+4 | | | 6/4+4+4+4+4+4 | | |
| **AC Output Data** | | | | | | |
| Rated AC Output Active Power(kW) | 70 | 75 | 80 | 90 | 100 | 110 |
| Max. AC Output Apparent Power(kVA) | 77 | 82.5 | 88 | 99 | 110 | 121 |
| Rated AC Output current (A) | 106.1/101.5 | 113.6/108.7 | 121.2/115.9 | 136.4/130.4 | 151.5/144.9 | 166.7/159.4 |
| Max. AC Output Current(A) | 116.7/111.6 | 125/119.6 | 133.3/127.5 | 150/143.5 | 166.7/159.4 | 183.3/175.4 |
| Rated Output voltage/range (V) | 220/380V, 230/400V 0.85Un-1.1Un | | | | | |
| Grid Connection Form | 3L/N/PE | | | | | |
| Rated Output Grid Frequency/range(Hz) | 50/45-55, 60/55-65 | | | | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | | | | |
| Total Current Harmonic Distortion THDi | <3% | | | | | |
| DC Injection Current | <0.5%In | | | | | |
| **Efficiency** | | | | | | |
| Max. Efficiency | 98.7% | | | 98.8% | | |
| Euro Efficiency | 98.1% | | | 98.2% | | |
| MPPT Efficiency | >99% | | | | | |
| **Equipment Protection** | | | | | | |
| DC Polarity Reverse Connection Protection | Yes | | | | | |
| AC Output Overcurrent Protection | Yes | | | | | |
| AC Output Overvoltage Protection | Yes | | | | | |
| AC Output Short Circuit Protection | Yes | | | | | |
| Thermal Protection | Yes | | | | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | | | | |
| DC Component Monitoring | Yes | | | | | |
| Ground Fault Current Monitoring | Yes | | | | | |
| Arc Fault Circuit Interrupter (AFCI) | Optional | | | | | |
| Power Network Monitoring | Yes | | | | | |
| Island Protection Monitoring | Yes | | | | | |
| Earth Fault Detection | Yes | | | | | |
| Overvoltage Load Drop Protection | Yes | | | | | |
| Residual Current (RCD) Detection | Yes | | | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | | | |
| **Interface** | | | | | | |
| Communication Interface | RS485/RS232 | | | | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | | | | |
| **General Data** | | | | | | |
| Operating Temperature Range (°C) | -25 to +65°C, >45°C Derating | | | | | |
| Permissible Ambient Humidity | 0-100% | | | | | |
| Permissible Altitude (m) | 4000m | | | | | |
| Noise (dB) | ≤ 55 dB(A) | | | | | |
| Ingress Protection(IP) Rating | IP 65 | | | | | |
| Inverter Topology | Non-Isolated | | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | | |
| Cabinet Size ( mm) | 824W×516H×312.7D (Excluding Connectors and Brackets) | | | | | |
| Weight (kg) | 81 | | | | | |
| Warranty | 5 Years | | | | | |
| Type of Cooling | Natural Cooling | | | | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 | | | | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | | |

# Three Phase String Inverter

## SUN-120/125/130/135/136K-G01P3-EU-AM8

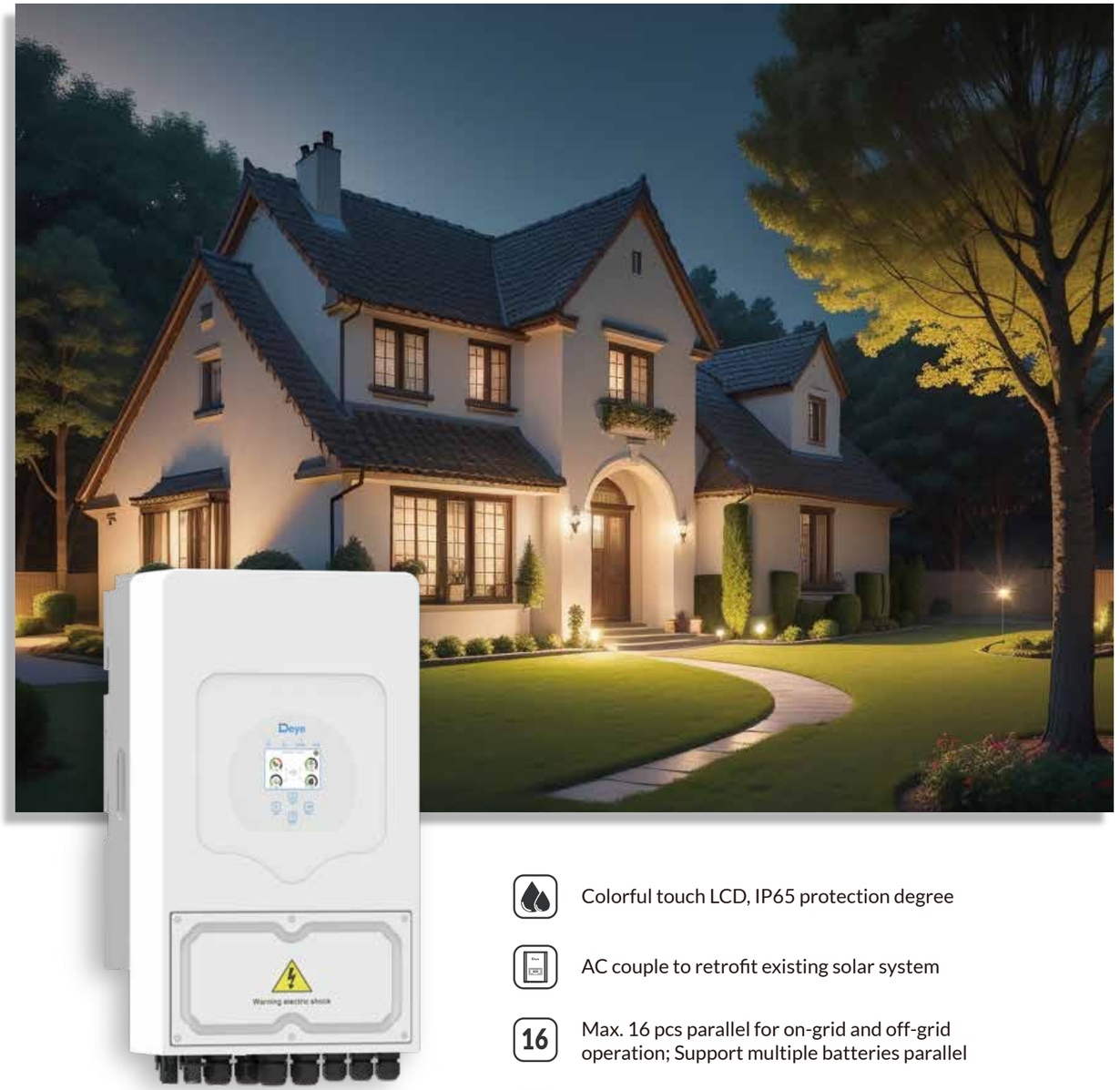
- 8 MPP trackers, Max. efficiency up to 98.8%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)
- Type II DC/AC SPD

## Technical Data

| Model | SUN-120K-G01P3 -EU-AM8 | SUN-125K-G01P3 -EU-AM8 | SUN-130K-G01P3 -EU-AM8 | SUN-135K-G01P3 -EU-AM8 | SUN-136K-G01P3 -EU-AM8 |
|---|---|---|---|---|---|
| **PV String Input Data** | | | | | |
| Max. PV Input Power (kW) | 180 | 187.5 | 195 | 202.5 | 204 |
| Max. PV Input Voltage (V) | 1100 | | | | |
| Start-up Voltage (V) | 250 | | | | |
| MPPT Voltage Range (V) | 200-1000 | | | | |
| Rated PV Input Voltage (V) | 600 | | | | |
| Max. Operating PV Input Current (A) | 40+40+40+40+40+40+40+40 | | | | |
| Max. Input Short Circuit Current (A) | 60+60+60+60+60+60+60+60 | | | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 8/4+4+4+4+4+4+4+4 | | | | |
| **AC Output Data** | | | | | |
| Rated AC Output Active Power(kW) | 120 | 125 | 130 | 135 | 136 |
| Max. AC Output Apparent Power(kVA) | 132 | 135 | 135 | 135 | 136 |
| Rated AC Output current (A) | 181.9/174 | 189.4/181.2 | 197/188.5 | 204.6/195.7 | 206.1/197.2 |
| Max. AC Output Current(A) | 200/191.4 | 204.6/195.7 | 204.6/195.7 | 204.6/195.7 | 206.1/197.2 |
| Rated Output voltage/range (V) | 380V/323V-418V, 400V/340V-440V | | | | |
| Grid Connection Form | 3L/N/PE | | | | |
| Rated Output Grid Frequency/range(Hz) | 50/45-55, 60/55-65 | | | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | | | |
| Total Current Harmonic Distortion THDi | <3% | | | | |
| DC Injection Current | <0.5%In | | | | |
| **Efficiency** | | | | | |
| Max. Efficiency | 98.8% | | | | |
| Euro Efficiency | 98.2% | | | | |
| MPPT Efficiency | >99% | | | | |
| **Equipment Protection** | | | | | |
| DC Polarity Reverse Connection Protection | Yes | | | | |
| AC Output Overcurrent Protection | Yes | | | | |
| AC Output Overvoltage Protection | Yes | | | | |
| AC Output Short Circuit Protection | Yes | | | | |
| Thermal Protection | Yes | | | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | | | |
| DC Component Monitoring | Yes | | | | |
| Ground Fault Current Monitoring | Yes | | | | |
| Arc Fault Circuit Interrupter (AFCI) | Optional | | | | |
| Power Network Monitoring | Yes | | | | |
| Island Protection Monitoring | Yes | | | | |
| Earth Fault Detection | Yes | | | | |
| Overvoltage Load Drop Protection | Yes | | | | |
| Residual Current (RCD) Detection | Yes | | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | | |
| **Interface** | | | | | |
| Communication Interface | RS485/RS232 | | | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | | | |
| **General Data** | | | | | |
| Operating Temperature Range (°C) | -25 to +65°C, >45°C Derating | | | | |
| Permissible Ambient Humidity | 0-100% | | | | |
| Permissible Altitude (m) | 4000m | | | | |
| Noise (dB) | ≤ 65 dB(A) | | | | |
| Ingress Protection(IP) Rating | IP 65 | | | | |
| Inverter Topology | Non-Isolated | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | |
| Cabinet Size ( mm) | 1006W×516H×325.5D (Excluding Connectors and Brackets) | | | | |
| Weight (kg) | 103 | | | | |
| Warranty | 5 Years | | | | |
| Type of Cooling | Natural Cooling | | | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 | | | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | |

# Single Phase Hybrid Inverter

## SUN-3.6/5K-SG03LP1-EU




- Colorful touch LCD, IP65 protection degree
- AC couple to retrofit existing solar system
- Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- Max. charging/discharging current of 135A
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

## Technical Data

| Model | SUN-3.6K-SG03LP1-EU | SUN-5K-SG03LP1-EU |
|---|---|---|
| **Battery Input Data** | | |
| Battery Type | Lead-acid or Lithium-ion | |
| Battery Voltage Range (V) | 40-60 | |
| Max. Charging Current (A) | 90 | 120 |
| Max. Discharging Current (A) | 90 | 120 |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS | |
| Number of Battery Input | 1 | |
| **PV String Input Data** | | |
| Max. PV Access Power (W) | 7200 | 10000 |
| Max. DC Input Power (W) | 4680 | 6500 |
| Rated PV Input Voltage (V) | 500 | |
| Start-up Voltage (V) | 125 | |
| MPPT Voltage Range (V) | 150-425 | |
| Rated DC Input Voltage(V) | 370 | |
| Max. Operating PV Input Current (A) | 13+13 | |
| Max. Input Short-Circuit Current (A) | 17+17 | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/1+1 | |
| **AC Output Data** | | |
| Rated AC Output Active Power (W) | 3600 | 5000 |
| Max AC Output Active Power (W) | 3960 | 5500 |
| AC Output Rated Current (A) | 16.4/15.7 | 22.7/21.7 |
| Max. AC Output Current (A) | 18/17.2 | 25/23.9 |
| Max. Continuous AC Passthrough (A) | 35 | |
| Peak Power (off grid) | 2 time of rated power, 10 S | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | |
| Rated Input/Output Voltage/Range (V) | 220/230 0.85Un-1.1Un | |
| Rated Input/Output Grid Frequency/Range | 50Hz/45Hz-55Hz 60Hz/55Hz-65Hz | |
| Grid Connection Form | L+N+PE | |
| Total Harmonics Current Distortion (THDi) | <3% (of nominal power) | |
| DC Current Injection | <0.5% In | |
| **Efficiency** | | |
| Max. Efficiency | 97.60% | |
| Euro Efficiency | 96.50% | |
| MPPT Efficiency | 99.90% | |
| **Protection** | | |
| Integrated | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level | |
| Over Voltage Category | TYPE II(DC), TYPE II(AC) | |
| **Interface** | | |
| Communication Interface | RS485/RS232/CAN | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | |
| **General Data** | | |
| Operating Temperature Range (℃) | -40 to +60°C, >45°C derating | |
| Permissible Ambient Humidity | 0-100% | |
| Permissible Altitude | 2000m | |
| Noise (dB) | <30 dB | |
| Inverter Topology | Non-Isolated | |
| Weight (kg) | 24.9 | |
| Size (mm) | 330W x 580H x232D（Excluding connectors and brackets） | |
| Protection Degree | IP65 | |
| Type of Cooling | Natural Cooling | |
| Warranty | 5 Years/10 Years<br>the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G98, G99, VDE-AR-N 4105 | |
| Safety EMC / Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | |

# Single Phase Hybrid Inverter

## SUN-8K-SG01LP1-EU

- Colorful touch LCD, IP65 protection degree
- AC couple to retrofit existing solar system
- Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- Max. charging/discharging current of 190A
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

## Technical Data

| Model | SUN-8K-SG01LP1-EU |
|---|---|
| **Battery Input Data** | |
| Battery Type | Lead-acid or Lithium-ion |
| Battery Voltage Range (V) | 40-60 |
| Max. Charging Current (A) | 190 |
| Max. Discharging Current (A) | 190 |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS |
| Number of Battery Input | 1 |
| **PV String Input Data** | |
| Max. PV Access Power (W) | 16000 |
| Max. DC Input Power (W) | 10400 |
| Rated PV Input Voltage (V) | 500 |
| Start-up Voltage (V) | 125 |
| MPPT Voltage Range (V) | 150-425 |
| Rated DC Input Voltage(V) | 370 |
| Max. Operating PV Input Current (A) | 26+26 |
| Max. Input Short-Circuit Current (A) | 44+44 |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/2+2 |
| **AC Output Data** | |
| Rated AC Output Active Power (W) | 8000 |
| Max AC Output Active Power (W) | 8800 |
| AC Output Rated Current (A) | 36.4/34.8 |
| Max. AC Output Current (A) | 40/38.3 |
| Max. Continuous AC Passthrough (A) | 50 |
| Peak Power (off grid) | 2 time of rated power, 10 S |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging |
| Rated Input/Output Voltage/Range (V) | 220/230 0.85Un-1.1Un |
| Rated Input/Output Grid Frequency/Range | 50Hz/45Hz-55Hz 60Hz/55Hz-65Hz |
| Grid Connection Form | L+N+PE |
| Total Harmonics Current Distortion (THDi) | <3% (of nominal power) |
| DC Current Injection | <0.5% In |
| **Efficiency** | |
| Max. Efficiency | 97.60% |
| Euro Efficiency | 96.50% |
| MPPT Efficiency | 99.90% |
| **Protection** | |
| Integrated | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level |
| Over Voltage Category | TYPE II(DC), TYPE II(AC) |
| **Interface** | |
| Communication Interface | RS485/RS232/CAN |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) |
| **General Data** | |
| Operating Temperature Range (℃) | -40 to +60°C, >45°C derating |
| Permissible Ambient Humidity | 0-100% |
| Permissible Altitude | 2000m |
| Noise (dB) | <30 dB |
| Inverter Topology | Non-Isolated |
| Weight (kg) | 30 |
| Cabinet size (mm) | 420W x 670H x233D （Excluding connectors and brackets） |
| Protection Degree | IP65 |
| Type of Cooling | Intelligent Air Cooling |
| Warranty | 5 Years/10 Years<br>the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy |
| Grid Regulation | IEC 61727,IEC 62116,CEI 0-21,EN 50549， NRS 097,RD 140,UNE 217002, OVE-Richtlinie R25,G99,VDE-AR-N 4105 |
| Safety EMC / Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 |

# Single Phase Hybrid Inverter

## SUN-12/14/16K-SG01LP1-EU

- Colorful touch LCD, IP65 protection degree
- AC couple to retrofit existing solar system
- Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- Max. charging/discharging current of 290A
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

### Technical Data

| Model | SUN-12K-SG01LP1-EU | SUN-14K-SG01LP1-EU | SUN-16K-SG01LP1-EU |
|---|---|---|---|
| **Battery Input Data** | | | |
| Battery Type | Lead-acid or Lithium-ion | | |
| Battery Voltage Range (V) | 40-60 | | |
| Max. Charging Current (A) | 220 | 250 | 290 |
| Max. Discharging Current (A) | 220 | 250 | 290 |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS | | |
| Number of Battery Input | 2 | | |
| **PV String Input Data** | | | |
| Max. PV Access Power (W) | 24000 | 28000 | 32000 |
| Max. DC Input Power (W) | 19200 | 22400 | 25600 |
| Rated PV Input Voltage (V) | 500 | | |
| Start-up Voltage (V) | 125 | | |
| MPPT Voltage Range (V) | 150-425 | | |
| Rated DC Input Voltage(V) | 370 | | |
| Max. Operating PV Input Current (A) | 26+26+26 | | |
| Max. Input Short-Circuit Current (A) | 44+44+44 | | |
| No.of MPP Trackers/ No.of Strings MPP Tracker | 3/2+2+2 | | |
| **AC Output Data** | | | |
| Rated AC Output Active Power (W) | 12000 | 14000 | 16000 |
| Max AC Output Active Power (W) | 13200 | 15400 | 17600 |
| AC Output Rated Current (A) | 54.5/52.2 | 63.6/60.9 | 72.7/69.6 |
| Max. AC Output Current (A) | 60/57.4 | 70/67 | 80/76.5 |
| Max. Continuous AC Passthrough (A) | 100 | | |
| Peak Power (off grid) | 2 time of rated power, 10 S | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | |
| Rated Input/Output Voltage/Range (V) | 220/380V, 230/400V 0.85Un-1.1Un | | |
| Rated Input/Output Grid Frequency/Range | 50Hz/45Hz-55Hz 60Hz/55Hz-65Hz | | |
| Grid Connection Form | L+N+PE | | |
| Total Harmonics Current Distortion (THDi) | <3% (of nominal power) | | |
| DC Current Injection | <0.5% In | | |
| **Efficiency** | | | |
| Max. Efficiency | 97.60% | | |
| Euro Efficiency | 96.50% | | |
| MPPT Efficiency | 99.90% | | |
| **Protection** | | | |
| Integrated | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level | | |
| Over Voltage Category | TYPE II(DC), TYPE II(AC) | | |
| **Interface** | | | |
| Communication Interface | RS485/RS232/CAN | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | |
| **General Data** | | | |
| Operating Temperature Range (°C) | -40 to +60°C, >45°C derating | | |
| Permissible Ambient Humidity | 0-100% | | |
| Permissible Altitude | 2000m | | |
| Noise (dB) | <50 dB | | |
| Inverter Topology | Non-Isolated | | |
| Weight (kg) | 52 | | |
| Cabinet size (mm) | 464W×763H×282D（Excluding connectors and brackets） | | |
| Protection Degree | IP65 | | |
| Type of Cooling | Intelligent Air Cooling | | |
| Warranty | 5 Years/10 Years<br>the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy | | |
| Grid Regulation | IEC 61727,IEC 62116,NRS 097 | | |
| Safety EMC / Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | |

# Three Phase Hybrid Inverter

## SUN-5/6/8/10/12K-SG04LP3-EU

- 100% unbalanced output, each phase; Max. output up to 50% rated power
- AC couple to retrofit existing solar system
- Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- Max. charging/discharging current of 240A
- 48V low voltage battery, transformer isolation design
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator



## Technical Data

| Model | SUN-5K -SG04LP3-EU | SUN-6K -SG04LP3-EU | SUN-8K -SG04LP3-EU | SUN-10K -SG04LP3-EU | SUN-12K -SG04LP3-EU |
|---|---|---|---|---|---|
| **Battery Input Data** | | | | | |
| Battery Type | Lead-acid or Lithium-ion | | | | |
| Battery Voltage Range (V) | 40-60 | | | | |
| Max. Charging Current (A) | 120 | 150 | 190 | 210 | 240 |
| Max. Discharging Current (A) | 120 | 150 | 190 | 210 | 240 |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | | | |
| Number of Battery Input | 1 | | | | |
| **PV String Input Data** | | | | | |
| Max. PV Access Power (W) | 10000 | 12000 | 16000 | 20000 | 24000 |
| Max. DC Input Power (W) | 7500 | 9000 | 12000 | 15000 | 18000 |
| Max. DC Input Voltage (V) | 800 | | | | |
| Start-up Voltage (V) | 160 | | | | |
| MPPT Voltage Range (V) | 350-650 | | | | |
| Rated DC Input Voltage (V) | 550 | | | | |
| Max. Operating PV Input Current (A) | 13+13 | | | 26+13 | |
| Max. Input Short-Circuit Current (A) | 17+17 | | | 34+17 | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/1+1 | | | 2/2+1 | |
| **AC Input/Output Data** | | | | | |
| Rated AC Input/Output Active Power (W) | 5000 | 6000 | 8000 | 10000 | 12000 |
| Max. AC Input/Output Apparent Power (VA) | 5500 | 6600 | 8800 | 11000 | 13200 |
| Rated AC Input/Output Current (A) | 7.6/7.2 | 9.1/8.7 | 12.1/11.6 | 15.2/14.5 | 18.2/17.4 |
| Max. AC Input/Output Current (A) | 8.4/8 | 10/9.6 | 13.4/12.8 | 16.7/15.9 | 20/19.1 |
| Max. Continuous AC Passthrough (grid to load) (A) | 45 | | | | |
| Peak Power (off-grid) (W) | 2 times of rated power, 10s | | | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | | | |
| Rated Input/Output Voltage/Range (V) | 220/380V, 230/400V 0.85Un-1.1Un | | | | |
| Rated Input/Output Grid Frequency/Range | 50Hz/45Hz-55Hz 60Hz/55Hz-65Hz | | | | |
| Grid Connection Form | 3L+N+PE | | | | |
| Total Current Harmonic Distortion THDi | <3% (of nominal power) | | | | |
| DC Component of Grid | <0.5% In | | | | |
| **Efficiency** | | | | | |
| Max. Efficiency | 97.60% | | | | |
| Euro Efficiency | 97.0% | | | | |
| MPPT Efficiency | >99% | | | | |
| **Equipment Protection** | | | | | |
| Integrated | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level | | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | | |
| **Interface** | | | | | |
| Communication Interface | RS485/RS232/CAN | | | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | | | |
| **General Data** | | | | | |
| Operating Temperature Range (℃) | -40 to +60°C, >45°C Derating | | | | |
| Permissible Ambient Humidity | 0-100% | | | | |
| Permissible Altitude | 2000m | | | | |
| Noise | ≤55 dB(A) | | | | |
| Ingress Protection(IP) Rating | IP 65 | | | | |
| Inverter Topology | Non-Isolated | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | |
| Cabinet size (W*H*D) [mm] | 422×658×254 (Excluding Connectors and Brackets) | | | | |
| Weight (kg) | 38 | | | | |
| Type of Cooling | Intelligent Air Cooling | | | | |
| Warranty | 5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy | | | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G98, G99, VDE-AR-N 4105 | | | | |
| Safety / EMC Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | |

# Three Phase Hybrid Inverter

## SUN-5/6/8/10/12/15/20/25K-SG01HP3-EU-AM2

- 100% unbalanced output, each phase
- AC couple to retrofit existing solar system
- *Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- Max. charging/discharging current of 50A
- High voltage battery, higher efficiency
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

### Technical Data

| Model | SUN-5K-SG01 HP3-EU-AM2 | SUN-6K-SG01 HP3-EU-AM2 | SUN-8K-SG01 HP3-EU-AM2 | SUN-10K-SG01 HP3-EU-AM2 | SUN-12K-SG01 HP3-EU-AM2 | SUN-15K-SG01 HP3-EU-AM2 | SUN-20K-SG01 HP3-EU-AM2 | SUN-25K-SG01 HP3-EU-AM2 |
|---|---|---|---|---|---|---|---|---|
| **Battery Input Data** | | | | | | | | |
| Battery Type | Lead-acid or Lithium-ion | | | | | | | |
| Battery Voltage Range (V) | 160-700 | | | | | | | |
| Max. Charging Current (A) | 30 | | 37 | | | | | 50 |
| Max. Discharging Current (A) | 30 | | 37 | | | | | 50 |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | | | | | | |
| Number of Battery Input | 1 | | | | | | | |
| **PV String Input Data** | | | | | | | | |
| Max. PV Access Power (W) | 10000 | 12000 | 16000 | 20000 | 24000 | 30000 | 40000 | 50000 |
| Max. DC Input Power (W) | 8000 | 9600 | 12800 | 16000 | 19200 | 24000 | 32000 | 40000 |
| Max. DC Input Voltage (V) | 1000 | | | | | | | |
| Start-up Voltage (V) | 180 | | | | | | | |
| MPPT Voltage Range (V) | 150-850 | | | | | | | |
| Rated DC Input Voltage (V) | 600 | | | | | | | 700 |
| Max. Operating PV Input Current (A) | 20+20 | | | | 26+20 | | 26+26 | 26+26 |
| Max. Input Short-Circuit Current (A) | 30+30 | | | | 39+30 | | 39+39 | 39+39 |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/1+1 | | | | 2/2+1 | | 2/2+2 | 2/2+2 |
| **AC Input/Output Data** | | | | | | | | |
| Rated AC Input/Output Active Power (W) | 5000 | 6000 | 8000 | 10000 | 12000 | 15000 | 20000 | 25000 |
| Max. AC Input/Output Apparent Power (VA) | 5500 | 6600 | 8800 | 11000 | 13200 | 16500 | 22000 | 26000 |
| Rated AC Input/Output Current (A) | 7.6/7.3 | 9.1/8.7 | 12.2/11.6 | 15.2/14.5 | 18.2/17.4 | 22.8/21.8 | 30.4/29 | 37.9/36.3 |
| Max. AC Input/Output Current (A) | 8.4/8 | 10/9.6 | 13.4/12.8 | 16.7/16 | 20/19.2 | 25/24 | 33.4/31.9 | 41.7/37.7 |
| Max. Continuous AC Passthrough (grid to load) (A) | 40 | | | | 80 | | | |
| Peak Power (off-grid) (W) | 2 times of rated power, 10s | | | | | | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | | | | | | |
| Rated Input/Output Voltage/Range (V) | 220/380V, 230/400V 0.85Un-1.1Un | | | | | | | |
| Rated Input/Output Grid Frequency/Range | 50Hz/45Hz-55Hz 60Hz/55Hz-65Hz | | | | | | | |
| Grid Connection Form | 3L+N+PE | | | | | | | |
| Total Current Harmonic Distortion THDi | <3% (of nominal power) | | | | | | | |
| DC Component of Grid | <0.5% In | | | | | | | |
| **Efficiency** | | | | | | | | |
| Max. Efficiency | 97.60% | | | | | | | |
| Euro Efficiency | 97.0% | | | | | | | |
| MPPT Efficiency | >99% | | | | | | | |
| **Equipment Protection** | | | | | | | | |
| Integrated | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level | | | | | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | | | | | |
| **Interface** | | | | | | | | |
| Communication Interface | RS485/RS232/CAN | | | | | | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | | | | | | |
| **General Data** | | | | | | | | |
| Operating Temperature Range (℃) | -40 to +60°C, >45°C Derating | | | | | | | |
| Permissible Ambient Humidity | 0-100% | | | | | | | |
| Permissible Altitude | 2000m | | | | | | | |
| | ≤55 dB(A) | | | | | | | |
| Ingress Protection(IP) Rating | IP 65 | | | | | | | |
| Inverter Topology | Non-Isolated | | | | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | | | | |
| Cabinet size （mm） | 408W×638H×237D (Excluding Connectors and Brackets) | | | | | | | |
| Weight (kg) | 30.5 | | | | | | | |
| Type of Cooling | Natural Cooling | | Intelligent Air Cooling | | | | | |
| Warranty | 5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy | | | | | | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G98, G99, VDE-AR-N 4105 | | | | | | | |
| Safety / EMC Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | | | | |

# Three Phase Hybrid Inverter

## SUN-29.9/30/35K-SG01HP3-EU-BM3
## SUN-40/50K-SG01HP3-EU-BM4

- 100% unbalanced output, each phase
- AC couple to retrofit existing solar system
- *Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- Max. charging/discharging current of 100A
- High voltage battery, higher efficiency
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator



## Technical Data

| Model | SUN-29.9K-SG01HP3 -EU-BM3 | SUN-30K-SG01HP3 -EU-BM3 | SUN-35K-SG01HP3 -EU-BM3 | SUN-40K-SG01HP3 -EU-BM4 | SUN-50K-SG01HP3 -EU-BM4 |
|---|---|---|---|---|---|
| **Battery Input Data** | | | | | |
| Battery Type | Lead-acid or Lithium-ion | | | | |
| Battery Voltage Range (V) | 160-700 | | | | |
| Max. Charging Current (A) | 50+50 | | | | |
| Max. Discharging Current (A) | 50+50 | | | | |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | | | |
| Number of Battery Input | 2 | | | | |
| **PV String Input Data** | | | | | |
| Max. PV Access Power (W) | 59800 | 60000 | 70000 | 80000 | 100000 |
| Max. DC Input Power (W) | 47840 | 48000 | 56000 | 64000 | 80000 |
| Max. DC Input Voltage (V) | 1000 | | | | |
| Start-up Voltage (V) | 180 | | | | |
| MPPT Voltage Range (V) | 150-850 | | | | |
| Rated DC Input Voltage (V) | 600 | | | | |
| Max. Operating PV Input Current (A) | 36+36+36 | 36+36+36 | 36+36+36 | 36+36+36+36 | |
| Max. Input Short-Circuit Current (A) | 55+55+55 | 55+55+55 | 55+55+55 | 55+55+55+55 | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 3/2+2+2 | | | 4/2+2+2+2 | |
| **AC Input/Output Data** | | | | | |
| Rated AC Input/Output Active Power (W) | 29900 | 30000 | 35000 | 40000 | 50000 |
| Max. AC Input/Output Apparent Power (VA) | 29900 | 33000 | 38500 | 44000 | 55000 |
| Rated AC Input/Output Current (A) | 45.4/43.4 | 45.5/43.5 | 53.1/50.8 | 60.7/58 | 75.8/72.5 |
| Max. AC Input/Output Current (A) | 45.4/43.4 | 50/47.8 | 58.4/55.8 | 66.7/63.8 | 83.4/79.7 |
| Max. Continuous AC Passthrough (grid to load) (A) | 200 | | | | |
| Peak Power (off-grid) (W) | 2 times of rated power, 10s | | | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | | | |
| Rated Input/Output Voltage/Range (V) | 220/380V, 230/400V 0.85Un-1.1Un | | | | |
| Rated Input/Output Grid Frequency/Range | 50Hz/45Hz-55Hz 60Hz/55Hz-65Hz | | | | |
| Grid Connection Form | 3L+N+PE | | | | |
| Total Current Harmonic Distortion THDi | <3% (of nominal power) | | | | |
| DC Component of Grid | <0.5% In | | | | |
| **Efficiency** | | | | | |
| Max. Efficiency | 97.60% | | | | |
| Euro Efficiency | 97.0% | | | | |
| MPPT Efficiency | >99% | | | | |
| **Equipment Protection** | | | | | |
| Integrated | DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level | | | | |
| Surge Protection Level | TYPE II(DC), TYPE II(AC) | | | | |
| **Interface** | | | | | |
| Communication Interface | RS485/RS232/CAN | | | | |
| Monitor Mode | GPRS/WIFI/Bluetooth/4G/LAN(optional) | | | | |
| **General Data** | | | | | |
| Operating Temperature Range (℃) | -40 to +60°C, >45°C Derating | | | | |
| Permissible Ambient Humidity | 0-100% | | | | |
| Permissible Altitude | 2000m | | | | |
| Noise | ≤65 dB(A) | | | | |
| Ingress Protection(IP) Rating | IP 65 | | | | |
| Inverter Topology | Non-Isolated | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | |
| Cabinet size （mm） | 527W×894H×294D (Excluding Connectors and Brackets) | | | | |
| Weight (kg) | 80 | | | | |
| Type of Cooling | Intelligent Air Cooling | | | | |
| Warranty | 5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy | | | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105 | | | | |
| Safety / EMC Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | |

# Micro Inverter

## SUN-M30/40/50G4-EU-Q0

- 1 MPP tracker, module level monitoring
- IP67 protection degree
- WIFI communication
- Rapid shutdown function
- Easy installation, suitable for quick-plug balcony PV system
- <100ms AC fast discharge, compliant with new required standard DIN VDE 0620-1 (<200ms) to protect human safety
- Complete NS protection with self-check function
- External relay advantage with low temperature, long life, easier maintenance
- 25 years design lifetime and 15 years warranty
- With integrate WIFI

### Technical Data

| Model | SUN-M30G4-EU-Q0 | SUN-M40G4-EU-Q0 | SUN-M50G4-EU-Q0 |
|---|---|---|---|
| **PV String Input Data** | | | |
| Max. PV Input Power (W) | 210-420(1 Piece) | 210-560(1 Piece) | 210-700(1 Piece) |
| Max. PV Input Voltage (V) | 60 | | |
| Start-up Voltage (V) | 20 | | |
| MPPT Voltage Range (V) | 25-55 | | |
| Rated PV Input Voltage (V) | 42.5 | | |
| Max. Operating PV Input Current (A) | 13 | | |
| Max. Input Short Circuit Current (A) | 19.5 | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 1/1 | | |
| **AC Output Side** | | | |
| Rated AC Output Active Power (W) | 300 | 400 | 500 |
| Max. AC Output Apparent Power (VA) | 300 | 400 | 500 |
| Rated AC Output Current (A) | 1.4/1.4 | 1.9/1.8 | 2.3/2.2 |
| Max. AC Output Current (A) | 1.4/1.4 | 1.9/1.8 | 2.3/2.2 |
| Rated Output Voltage/Range (V) | 220/230 0.85Un-1.1Un | | |
| Grid Connection Form | L/N/PE | | |
| Rated Output Grid Frequency/Range(Hz) | 50/45-55, 60/55-65 | | |
| Max. Unit per Branch | 17 | 13 | 10 |
| Power Factor Adjustment Range | 0.9 leading-0.9 lagging | | |
| Total Current Harmonic Distortion THDi | <3% | | |
| DC Injection Current | <0.5%In | | |
| **Efficiency** | | | |
| Max. Efficiency | 96.5% | | |
| Euro Efficiency | 96.0% | | |
| MPPT Efficiency | >99% | | |
| **Equipment Protection** | | | |
| DC Polarity Reverse Connection Protection | Yes | | |
| AC Output Overcurrent Protection | Yes | | |
| AC Output Overvoltage Protection | Yes | | |
| AC Output Short Circuit Protection | Yes | | |
| Thermal Protection | Yes | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | |
| Power Network Monitoring | Yes | | |
| Island Protection Monitoring | Yes | | |
| Earth Fault Detection | Yes | | |
| Overvoltage Load Drop Protection | Yes | | |
| **General Data** | | | |
| Operating Temperature Range (°C) | -40 to +65°C, >45°C Derating | | |
| Permissible Ambient Humidity | 0-100% | | |
| Permissible Altitude (m) | 2000m | | |
| Noise (dB) | ≤25 | | |
| Ingress Protection(IP) Rating | IP 67 | | |
| Inverter Topology | Isolated | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | |
| Communication | Wi-Fi | | |
| Cabinet Size (WxHxD mm) | 173×158.5×31.5 (Excluding connectors and brackets) | | |
| Weight (kg) | 1.85 | | |
| Warranty | 15 Years | | |
| Type of Cooling | Natural Cooling | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | |

# Microinverter

## SUN-M60/80/100G4-EU-Q0

- ☑ 2 MPP tracker, module level monitoring
- ☑ IP67 protection degree
- ☑ WIFI communication
- ☑ Rapid shutdown function
- ☑ Easy installation, suitable for quick-plug balcony PV system
- ☑ <100ms AC fast discharge, compliant with new required standard DIN VDE 0620-1 (<200ms) to protect human safety
- ☑ Complete NS protection with self-check function
- ☑ External relay advantage with low temperature, long life, easier maintenance
- ☑ 25 years design lifetime and 15 years warranty
- ☑ With integrate WIFI

## Technical Data

| Model | SUN-M60G4-EU-Q0 | SUN-M80G4-EU-Q0 | SUN-M100G4-EU-Q0 |
|---|---|---|---|
| **PV String Input Data** | | | |
| Max. PV Input Power (W) | 210-420(2 Pieces) | 210-560(2 Pieces) | 210-700(2 Pieces) |
| Max. PV Input Voltage (V) | 60 | | |
| Start-up Voltage (V) | 20 | | |
| MPPT Voltage Range (V) | 25-55 | | |
| Rated PV Input Voltage (V) | 42.5 | | |
| Max. Operating PV Input Current (A) | 13+13 | | |
| Max. Input Short Circuit Current (A) | 19.5+19.5 | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 2/1 | | |
| **AC Output Side** | | | |
| Rated AC Output Active Power (W) | 600 | 800 | 1000 |
| Max. AC Output Apparent Power (VA) | 600 | 800 | 1000 |
| Rated AC Output Current (A) | 2.8/2.7 | 3.7/3.5 | 4.6/4.4 |
| Max. AC Output Current (A) | 2.8/2.7 | 3.7/3.5 | 4.6/4.4 |
| Rated Output Voltage/Range (V) | 220/230 0.85Un-1.1Un | | |
| Grid Connection Form | L/N/PE | | |
| Rated Output Grid Frequency/Range(Hz) | 50/45-55, 60/55-65 | | |
| Max. Unit per Branch | 8 | 6 | 5 |
| Power Factor Adjustment Range | 0.9 leading-0.9 lagging | | |
| Total Current Harmonic Distortion THDi | <3% | | |
| DC Injection Current | <0.5%In | | |
| **Efficiency** | | | |
| Max. Efficiency | 96.5% | | |
| Euro Efficiency | 96.0% | | |
| MPPT Efficiency | >99% | | |
| **Equipment Protection** | | | |
| DC Polarity Reverse Connection Protection | Yes | | |
| AC Output Overcurrent Protection | Yes | | |
| AC Output Overvoltage Protection | Yes | | |
| AC Output Short Circuit Protection | Yes | | |
| Thermal Protection | Yes | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | |
| Power Network Monitoring | Yes | | |
| Island Protection Monitoring | Yes | | |
| Earth Fault Detection | Yes | | |
| Overvoltage Load Drop Protection | Yes | | |
| **General Data** | | | |
| Operating Temperature Range (°C) | -40 to +65°C, >45°C Derating | | |
| Permissible Ambient Humidity | 0-100% | | |
| Permissible Altitude (m) | 2000m | | |
| Noise (dB) | ≤25 | | |
| Ingress Protection(IP) Rating | IP 67 | | |
| Inverter Topology | Isolated | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | |
| Communication | Wi-Fi | | |
| Cabinet Size (WxHxD mm) | 280.5×190×40 (Excluding Connectors and Brackets) | | |
| Weight (kg) | 3 | | |
| Warranty | 15 Years | | |
| Type of Cooling | Natural Cooling | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | |

# Microinverter

## SUN-M130/160/180/200G4-EU-Q0

- Max. DC input current of 18A, adapt to 700W PV module
- IP67 protection degree, *10 years warranty
- 4 MPP trackers, module level monitoring
- Wi-Fi communication
- Rapid shutdown function

## Technical Data

| Model | SUN-M130G4 -EU-Q0 | SUN-M160G4 -EU-Q0 | SUN-M180G4 -EU-Q0 | SUN-M200G4 -EU-Q0 |
|---|---|---|---|---|
| **PV String Input Data** | | | | |
| Max. PV Input Power (W) | 210-460 (4 Pieces) | 210-560 (4 Pieces) | 210-630 (4 Pieces) | 210-700 (4 Pieces) |
| Max. PV Input Voltage (V) | 60 | | | |
| Start-up Voltage (V) | 20 | | | |
| MPPT Voltage Range (V) | 25-55 | | | |
| Rated PV Input Voltage (V) | 42.5 | | | |
| Max. Operating PV Input Current (A) | 15+15+15+15 | | | |
| Max. Input Short Circuit Current (A) | 22.5+22.5+22.5+22.5 | | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 4/1 | | | |
| **AC Output Side** | | | | |
| Rated AC Output Active Power (W) | 1300 | 1600 | 1800 | 2000 |
| Max. AC Output Apparent Power (VA) | 1300 | 1600 | 1800 | 2000 |
| Rated AC Output Current (A) | 6/5.7 | 7.3/7 | 8.2/7.9 | 9.1/8.7 |
| Max. AC Output Current (A) | 6/5.7 | 7.3/7 | 8.2/7.9 | 9.1/8.7 |
| Rated Output Voltage/Range (V) | 220/230 0.85Un-1.1Un | | | |
| Grid Connection Form | L/N/PE | | | |
| Rated Output Grid Frequency/Range(Hz) | 50/45-55, 60/55-65 | | | |
| Max. Unit per Branch | 5 | 4 | 3 | 3 |
| Power Factor Adjustment Range | 0.9 leading-0.9 lagging | | | |
| Total Current Harmonic Distortion THDi | <3% | | | |
| DC Injection Current | <0.5%In | | | |
| **Efficiency** | | | | |
| Max. Efficiency | 96.5% | | | |
| Euro Efficiency | 96.0% | | | |
| MPPT Efficiency | >99% | | | |
| **Equipment Protection** | | | | |
| DC Polarity Reverse Connection Protection | Yes | | | |
| AC Output Overcurrent Protection | Yes | | | |
| AC Output Overvoltage Protection | Yes | | | |
| AC Output Short Circuit Protection | Yes | | | |
| Thermal Protection | Yes | | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | | |
| Power Network Monitoring | Yes | | | |
| Island Protection Monitoring | Yes | | | |
| Earth Fault Detection | Yes | | | |
| Overvoltage Load Drop Protection | Yes | | | |
| **General Data** | | | | |
| Operating Temperature Range (°C) | -40 to +65°C, >45°C Derating | | | |
| Permissible Ambient Humidity | 0-100% | | | |
| Permissible Altitude (m) | 2000m | | | |
| Noise (dB) | ≤25 | | | |
| Ingress Protection(IP) Rating | IP 67 | | | |
| Inverter Topology | Isolated | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | |
| Communication | Wi-Fi | | | |
| Cabinet Size (WxHxD mm) | 311×250.5×36.5 (Excluding Connectors and Brackets) | | | |
| Weight (kg) | 5.1 | | | |
| Warranty | 10 Years | | | |
| Type of Cooling | Natural Cooling | | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 | | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | |

*Note: 15 Years Warranty (Only Installed in Germany and Austria)

# Microinverter

## SUN-M220/225G4-EU-Q0

- Max. DC input current of 18A, adapt to 790W PV module
- IP67 protection degree, *10 years warranty
- 4 MPP trackers, module level monitoring
- Wi-Fi communication
- Rapid shutdown function



## Technical Data

| Model | SUN-M220G4 -EU-Q0 | SUN-M225G4 -EU-Q0 |
|---|---|---|
| **PV String Input Data** | | |
| Max. PV Input Power (W) | 210-770 (4 Pieces) | 210-790 (4 Pieces) |
| Max. PV Input Voltage (V) | 60 | |
| Start-up Voltage (V) | 20 | |
| MPPT Voltage Range (V) | 25-55 | |
| Rated PV Input Voltage (V) | 42.5 | |
| Max. Operating PV Input Current (A) | 18+18+18+18 | |
| Max. Input Short Circuit Current (A) | 27+27+27+27 | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 4/1 | |
| **AC Output Side** | | |
| Rated AC Output Active Power (W) | 2200 | 2250 |
| Max. AC Output Apparent Power (VA) | 2200 | 2250 |
| Rated AC Output Current (A) | 10/9.6 | 10.3/9.8 |
| Max. AC Output Current (A) | 10/9.6 | 10.3/9.8 |
| Rated Output Voltage/Range (V) | 220/230 0.85Un-1.1Un | |
| Grid Connection Form | L/N/PE | |
| Rated Output Grid Frequency/Range(Hz) | 50/45-55, 60/55-65 | |
| Max. Unit per Branch | 3 | 3 |
| Power Factor Adjustment Range | 0.9 leading-0.9 lagging | |
| Total Current Harmonic Distortion THDi | <3% | |
| DC Injection Current | <0.5%In | |
| **Efficiency** | | |
| Max. Efficiency | 96.5% | |
| Euro Efficiency | 96.0% | |
| MPPT Efficiency | >99% | |
| **Equipment Protection** | | |
| DC Polarity Reverse Connection Protection | Yes | |
| AC Output Overcurrent Protection | Yes | |
| AC Output Overvoltage Protection | Yes | |
| AC Output Short Circuit Protection | Yes | |
| Thermal Protection | Yes | |
| DC Terminal Insulation Impedance Monitoring | Yes | |
| Power Network Monitoring | Yes | |
| Island Protection Monitoring | Yes | |
| Earth Fault Detection | Yes | |
| Overvoltage Load Drop Protection | Yes | |
| **General Data** | | |
| Operating Temperature Range (°C) | -40 to +65°C, >45°C Derating | |
| Permissible Ambient Humidity | 0-100% | |
| Permissible Altitude (m) | 2000m | |
| Noise (dB) | ≤25 | |
| Ingress Protection(IP) Rating | IP 67 | |
| Inverter Topology | Isolated | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | |
| Communication | Wi-Fi | |
| Cabinet Size (WxHxD mm) | 358×255.5×36.5 (Excluding Connectors and Brackets) | |
| Weight (kg) | 5.2 | |
| Warranty | 10 Years | |
| Type of Cooling | Natural Cooling | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | |

*Note: 15 Years Warranty (Only Installed in Germany and Austria)

# Microinverter

## SUN-M130/160/180/200/220/225G4-EU-Q0-I

Wireless wifi communication, no wiring required

Bidirectional measurement can record electricity consumption data while also preventing backflow

IP67 protection degree, *10 years warranty

Max. DC input current of 18A, adapt to 790W PV module

4 MPP trackers, module level monitoring

Rapid shutdown function

## Technical Data

| Model | SUN-M130G4-EU-Q0-I | SUN-M160G4-EU-Q0-I | SUN-M180G4-EU-Q0-I | SUN-M200G4-EU-Q0-I | SUN-M220G4-EU-Q0-I | SUN-M225G4-EU-Q0-I |
|---|---|---|---|---|---|---|
| **PV String Input Data** | | | | | | |
| Max. PV Input Power (W) | 210-460 (4 Pieces) | 210-560 (4 Pieces) | 210-630 (4 Pieces) | 210-700 (4 Pieces) | 210-770 (4 Pieces) | 210-790 (4 Pieces) |
| Max. PV Input Voltage (V) | 60 | | | | | |
| Start-up Voltage (V) | 20 | | | | | |
| MPPT Voltage Range (V) | 25-55 | | | | | |
| Rated PV Input Voltage (V) | 42.5 | | | | | |
| Max. Operating PV Input Current (A) | 18+18+18+18 | | | | | |
| Max. Input Short Circuit Current (A) | 27+27+27+27 | | | | | |
| No. of MPP Trackers/ No. of Strings MPP Tracker | 4/1 | | | | | |
| **AC Output Side** | | | | | | |
| Rated AC Output Active Power (W) | 1300 | 1600 | 1800 | 2000 | 2200 | 2250 |
| Max. AC Output Apparent Power (VA) | 1300 | 1600 | 1800 | 2000 | 2200 | 2250 |
| Rated AC Output Current (A) | 6/5.7 | 7.3/7 | 8.2/7.9 | 9.1/8.7 | 10/9.6 | 10.3/9.8 |
| Max. AC Output Current (A) | 6/5.7 | 7.3/7 | 8.2/7.9 | 9.1/8.7 | 10/9.6 | 10.3/9.8 |
| Rated Output Voltage/Range (V) | 220/230 0.85Un-1.1Un | | | | | |
| Grid Connection Form | L/N/PE | | | | | |
| Rated Output Grid Frequency/Range(Hz) | 50/45-55, 60/55-65 | | | | | |
| Max. Unit per Branch | 5 | 4 | 3 | 3 | 3 | 3 |
| Power Factor Adjustment Range | 0.9 leading-0.9 lagging | | | | | |
| Total Current Harmonic Distortion THDi | <3% | | | | | |
| DC Injection Current | <0.5%In | | | | | |
| **Efficiency** | | | | | | |
| Max. Efficiency | 96.5% | | | | | |
| Euro Efficiency | 96.0% | | | | | |
| MPPT Efficiency | >99% | | | | | |
| **Equipment Protection** | | | | | | |
| DC Polarity Reverse Connection Protection | Yes | | | | | |
| AC Output Overcurrent Protection | Yes | | | | | |
| AC Output Overvoltage Protection | Yes | | | | | |
| AC Output Short Circuit Protection | Yes | | | | | |
| Thermal Protection | Yes | | | | | |
| DC Terminal Insulation Impedance Monitoring | Yes | | | | | |
| Power Network Monitoring | Yes | | | | | |
| Island Protection Monitoring | Yes | | | | | |
| Earth Fault Detection | Yes | | | | | |
| Overvoltage Load Drop Protection | Yes | | | | | |
| **General Data** | | | | | | |
| Operating Temperature Range (°C) | -40 to +65°C, >45°C Derating | | | | | |
| Permissible Ambient Humidity | 0-100% | | | | | |
| Permissible Altitude (m) | 2000m | | | | | |
| Noise (dB) | ≤25 | | | | | |
| Ingress Protection(IP) Rating | IP 67 | | | | | |
| Inverter Topology | Isolated | | | | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | | | | |
| Communication | Wi-Fi | | | | | |
| Cabinet Size (WxHxD mm) | 358×255.5×36.5 (Excluding Connectors and Brackets) | | | | | |
| Weight (kg) | 4.95 | | | | | |
| Warranty | 10 Years | | | | | |
| Type of Cooling | Natural Cooling | | | | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, VDE-AR-N 4105 | | | | | |
| Safety EMC/Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | | | | |

*Note: 15 Years Warranty (Only Installed in Germany and Austria)

# Balcony Energy Storage Microinverter

## SUN-BK60/80/100SG01-EU-AM2

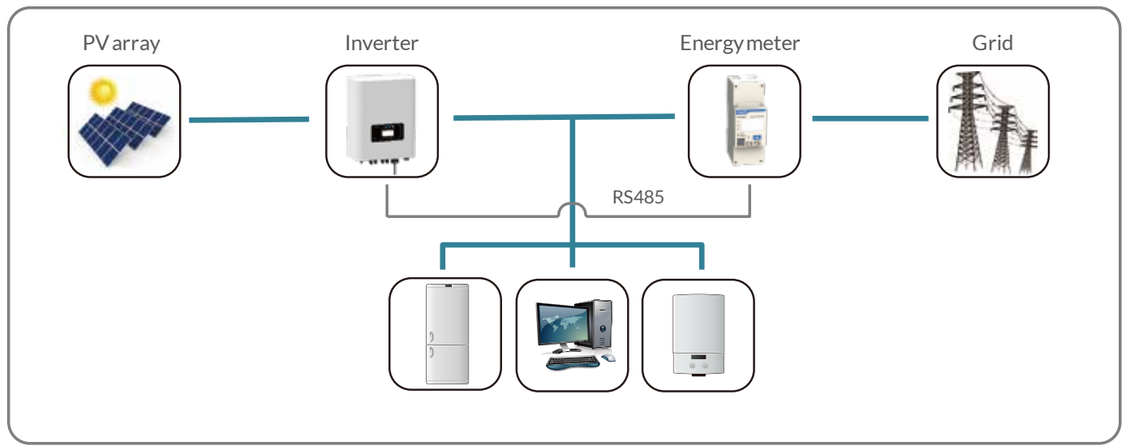
- IP67 protection degree
- WIFI communication
- Wireless CT, Wireless Smart Switch and Wireless BMS communication
- AC couple to retrofit existing solar system
- Max. charging/discharging current 25A
- Expand two independent PV inputs
- Working in Microinverter mode or storage inverter mode
- Supports UPS load, fast switching within 4ms

## Technical Data

| Model | SUN-BK60SG01-EU-AM2 | SUN-BK80SG01-EU-AM2 | SUN-BK100SG01-EU-AM2 |
|---|---|---|---|
| **Battery Input Data** | | | |
| Battery Type | Lead-acid or Lithium-ion | | |
| Battery Voltage Range (V) | 40-60 | | |
| Max. Charging Current (A) | 25 | | |
| Max. Discharging Current (A) | 25 | | |
| Charging Strategy for Li-ion Battery | Self-adaption to BMS | | |
| Number of Battery Input | 1 | | |
| **PV String Input Data** | | | |
| Max. PV Input Power (W) | 1320 | 1760 | 2200 |
| Max. PV Input Voltage (V) | 60 | | |
| Start-up Voltage (V) | 25 | | |
| MPPT Voltage Range (V) | 20-55 | | |
| Rated PV Input Voltage (V) | 42.5 | | |
| Max. Operating PV Input Current (A) | 18+18 | | |
| Max. Input Short-Circuit Current (A) | 27+27 | | |
| No. of MPP Trackers/ No. of Strings per MPP Tracker | 2/1 | | |
| **AC Input/Output Data** | | | |
| Rated AC Input/Output Active Power (W) | 600 | 800 | 800 |
| Max. AC Input/Output Apparent Power (VA) | 660 | 880 | 880 |
| Rated AC Input/Output Current (A) | 2.8/2.7 | 3.7/3.5 | 4.6/4.4 |
| Max. AC Input/Output Current (A) | 3/2.9 | 4/3.9 | 5/4.8 |
| Max. Continuous AC Passthrough (grid to load) (A) | 10 | | |
| Peak Power (off-grid) (W) | 2 times of rated power, 10s | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | |
| Rated Input/Output Voltage/Range (V) | 220/230 0.85Un-1.1Un | | |
| Rated Input/Output Grid Frequency/Range(Hz) | 50/45-55, 60/55-65 | | |
| Grid Connection Form | L+N+PE | | |
| Total Current Harmonic Distortion THDi | <3% (of nominal power) | | |
| DC Injection Current | <0.5% In | | |
| **Efficiency** | | | |
| Max. Efficiency | 96.5% | | |
| Euro Efficiency | 96.0% | | |
| MPPT Efficiency | >99% | | |
| **Equipment 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) | | |
| **General Data** | | | |
| Operating Temperature Range (**℃**) | -40 to +65°C, >45°C Derating | | |
| Permissible Ambient Humidity | 0-100% | | |
| Permissible Altitude | 2000m | | |
| Noise (dB) | ≤25 | | |
| Ingress Protection(IP) Rating | IP 67 | | |
| Inverter Topology | Isolated | | |
| Over Voltage Category | OVC II(DC), OVC III(AC) | | |
| Communication | WIFI | | |
| Cabinet Size (WxHxD mm) | 364.5×183×32.85 (Excluding Connectors and Brackets) | | |
| Weight (kg) | 4.3 | | |
| Type of Cooling | Natural Cooling | | |
| Warranty | 10 Years/15 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy | | |
| Grid Regulation | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, VDE-AR-N 4105 | | |
| Safety / EMC Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | |

# Energy Meter

## Typical Application Diagram




## Technical Data

| Model | CHNT DDSU666 | CHNT DTSU666 | EASTRON SDM 230 Modbus | EASTRON SDM 630-Modbus V2 | EASTRON SDM 630 MCT |
|---|---|---|---|---|---|
| **Battery Data** | | | | | |
| Max. direct current measurement (A) | 60 | 80 | 100 | 100 | 1-9999A (with CT) |
| Direct Voltage measurement between phases | / | 176-458V | / | 147-480V | 50-950V<br>50-550V |
| Direct measurement between phase and neutral | 176-264V | 100-265V | 176-276V | 85-480V | 20-550V |
| **Accuracy Class** | | | | | |
| Active power | Class1 | | | | |
| Reactive power | Class2 | | | | |
| **Power Supply** | | | | | |
| Power consumption | ≤1W / 8VA | ≤1.5W / 6VA | ≤2W / 10VA | ≤2W / 10VA | ≤2W / 10VA |
| AC power supply input voltage | 176-264V | 100-265V | 176-276V | 85-480V | 85-275V / 120-380V |
| AC power supply input frequency | 50/60Hz | | 50Hz | 50/60Hz ±2% | 50/60Hz ±2% |
| **Generation Specifications** | | | | | |
| Dimenstions (L/H/W) in mm | 36×85×66 | 100×72×66 | 36×99×63 | 72×100×66 | 72×94.5×65 |
| Weight (kg) | 0.21 | 0.44 | 0.21 | 0.42 | 0.29 |
| Mounting options | DIN Rail | | | | |
| Degree of protection | IP51 | | | | |
| Display | LCD | | | | |
| Communication interface | RS485 | | | | |
| Max. number of devices to connect | 32 | | | | |
| Regulated working temperature range | -25-55°C | -10-45°C | -25-55°C | | |
| Limited working temperature range | -40-70°C | 25-75°C | / | | |
| Humidity | ≤75% | | 0~95%, non-Condensing | | |
| Warranty | 1.5 years | | | | |

# Stick Logger

## GPRS / WIFI / 4G / Ethernet

Monitor your system anywhere in the world.

- External light indicator, logging status at a glance;
- Plug & play, pick power within inverter, no external power needed, easy to install;
- Independent from inverter to protect parts inside inverter, eliminate potential problems;
- IP65 water-proof design, resistant to bad weather, enhance stability;
- External design, easier to replace faulty equipment;
- End-user can monitor yields at any time with SOLARMAN APP.

## Technical Data

| Product Model | LSG-3 | LSG-4 | LSW-3 | LS4G-3 | LSE-3 |
|---|---|---|---|---|---|
| Remote Communication Interface | GPRS | GPRS | WiFi | 4G | LAN |
| Working Frequency | GSM850 / EGSM900 / DCS1800 / PCS 1900MHz | GSM850 / EGSM900 / DCS1800 / PCS 1900MHz | 2.142GHz-2.484GHz | 704MHZ-960MHZ 1710MHZ-2690MHZ | Adaptive Network; 10M / 100M |
| Satellite Positioning | / | GPS / Beidou ＜15m | / | / | / |
| Antenna | External GPRS Stick Antenna | External GPRS Stick Antenna | External WiFi Stick Antenna | External 4G Stick Antenna | / |
| Data Interface | RS485 / RS232 / TTL | | | | |
| Working Voltage | DC4.7V~DC15V | | | | |
| Working Power | 3W | 3W | 1.5W | 5W | 1W |
| SIM Card | Chip Card / MicroSIM | Chip Card / MicroSIM | / | MicroSIM | / |
| Memory | 2M Flash (2M-16M Optional) | | | | |
| Working Temperature | -40°C-85°C | | | | |
| Working Humidity | ＜90% (No Condensing) | | | | |
| No.of Connections | One | | | | |
| Serial Communication Rate | bps (1200-115200bps Configurable) | | | | |
| Data Acquisition Interval | Default 5min (1-15min Configurable) | | | | |
| User Configuration | AT+InstructionSet | | | | |
| | Remote Server | | | | |
| | Bluetooth | | APP / Web | Local Serial Port | Web |
| Firmware Upgrade | Remote Upgrade | | | | |
| Others | Real-time Control, Data resuming | | | | |

Stick logger supports GPRS, WIFI, 4G, Ethernet and other communication modes. Its bluetooth function enables local debugging configuration to collect operation and power generation data from inverters.

It pairs with solarman professional platform to enable remote PV system monitoring and to realize distributed power station management with lower cost and higher efficiency.

# Deye Cloud

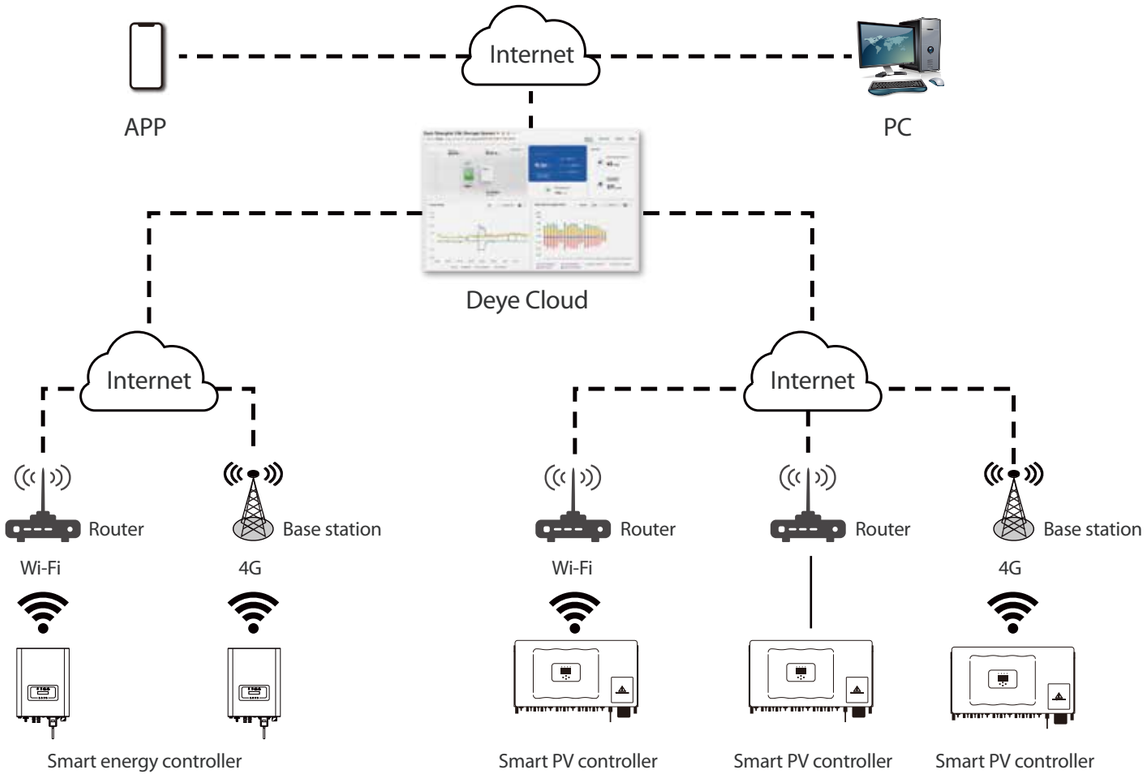
Support the establishment, data collection, monitoring, operation, maintenance, and after-sales services for new energy power stations like photovoltaic, energy storage, and micro-inverters.
The Deye Smart Cloud Big Data platform enables transparent management of all power station types, enhancing their value. It offers a variety of power station and equipment types, comprehensive monitoring, efficient troubleshooting, intelligent data analysis, energy flow visualization, and diverse management modes.
Additionally, our new data center feature allows collaboration with merchants for shared operation and maintenance, ensuring power station security and stability.

## All in one

·Supports multiple devices such as photovoltaic, batteries, wind turbines, power grids, micro-inverters, diesel generators, loads, UPS, and Smartload in all aspects;
·Supports both business users and owners in one APP.

## Security

·Separate data centers in Europe and America;
·Comply with ETSI/EN 303645, GDPR.



# Project cases

- 20kW
- Germany
- SUN-10K-G

- 220kW
- China
- SUN-110K-G

- 5kW
- Australia
- SUN-5K-G

- 660kW
- Ching
- SUN-110K-G

- 50kW
- Brazil
- SUN-25K-G

# Project cases

- 320kW
- Brazil
- SUN-80K-G

- 16kW
- South Africa
- SUN-8K-SG

- 150kW
- South Africa
- SUN-50K-SG

- 32kW
- South Africa
- SUN-8K-SG

- 6kW
- Italy
- SUN-6K-SG

# Project cases

- 48kW
- Lebanon
- SUN-12K-SG

- 12kW
- Myanmar
- SUN-12K-SG

- 50kW
- India
- SUN-50K-SG

- 120kW
- Philippines
- SUN-12K-SG

- 12kW
- Vietnam
- SUN-12K-SG