

# Deye

*Clean Power For You*

**Ningbo Deye Inverter Technology Co., Ltd**

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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](mailto:market@deye.com.cn)

Ver: 3.0 2022



## *World-leading Residential Energy Storage System Provider*

Stock Code: 605117.SH

*Choose Deye — Choose a Green and Healthy Life*

**Deye**  
2022



Deye

# Company Profile

- 1** Ningbo Deye Inverter Technology Co., Ltd, founded in 2007 with registered capital 30 million USD, is one of the China's high-tech enterprises and a subsidiary of Deye Group. With a plant area over 15,000 m<sup>2</sup> 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 1.5-110kW, Hybrid inverter 3kW-12kW, and microinverter 300W-2000W.
- 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.



Read more

# Milestones

**2021**

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

**30,000 pcs +**

By the end of 2019, with total shipments 30,000+, Deye hybrid inverter has become Top 3 in South Africa, 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 and battery DC / DC topology etc...

**2007**

Founded in 2007 with registered capital of 46 million USD.

LIMITLESS

# Core Technology

Deye hybrid inverter 3-50kW with 208/230/240/400Vac

**4**

Automatic switching time 4ms

**6**

6 time periods for battery charging/discharging

**16**

V/f droop control, Max. 16pcs in parallel

**24**

Supports using diesel generator to charge battery directly, ensuring system energy supply 7\* 24H

**95.5**

Max. conversion efficiency of 97.6%;  
Max. battery charge efficiency of 95.5%

**240**

Max. charging/discharging current of 240A



# Core Features

Deye grid-connected inverter 1-110kW

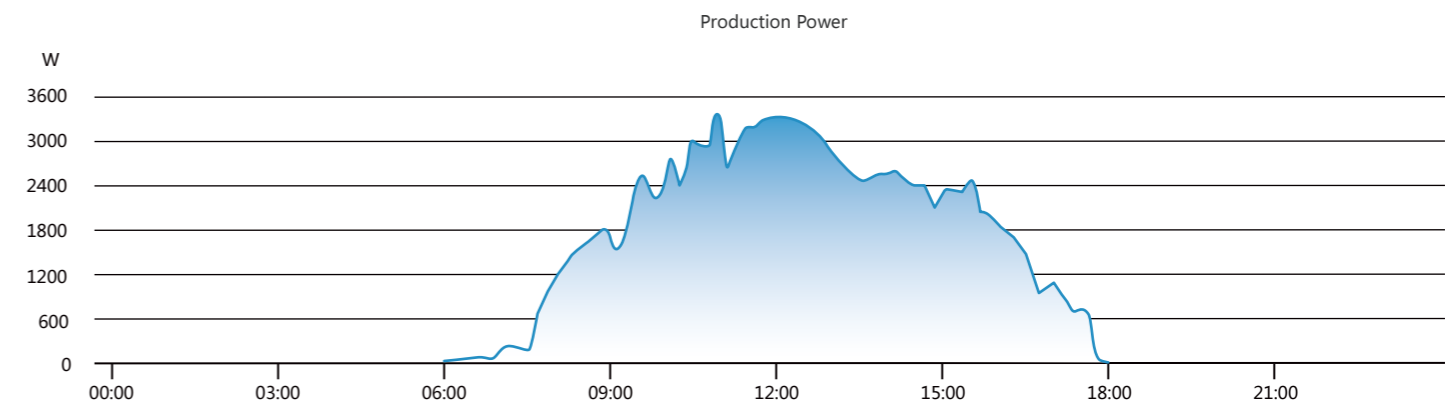
- ✓ Max. 8 MPP trackers, Max. efficiency up to 98.9%
- ✓ High DC/AC ratio 1.5 times for more yields
- ✓ Wide output voltage range 277-520Vac
- ✓ Zero export application, response speed within 0.5S
- ✓ T-type three-level topology and enhanced SVPWM
- ✓ Type II DC / AC SPD, frequency droop control technology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



# Main Highlights

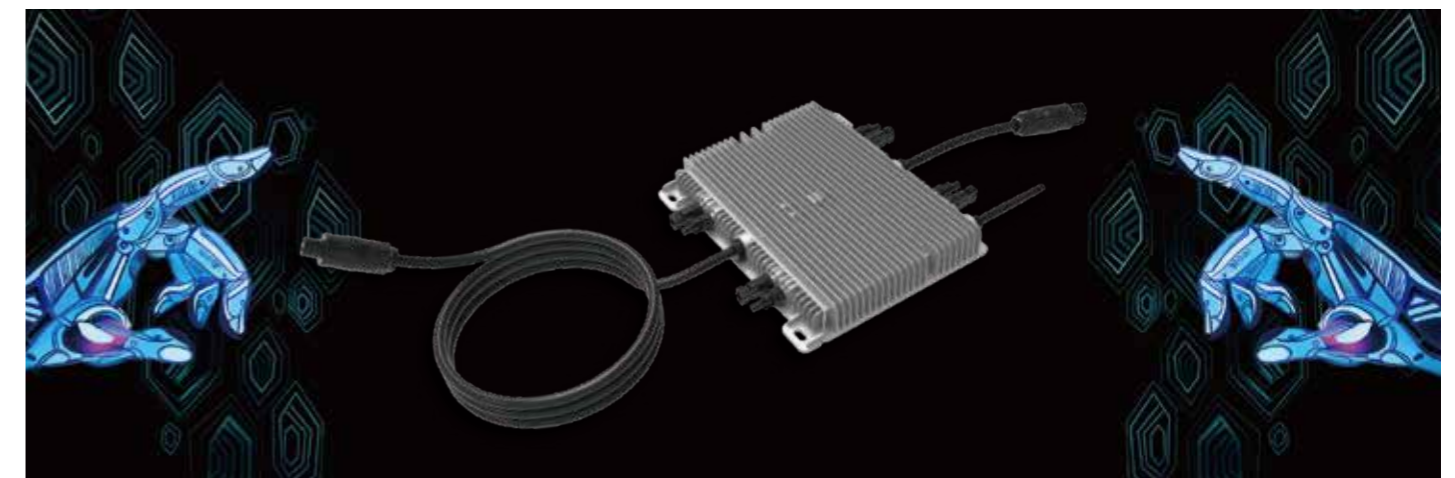
Deye microinverter 300-2000W

- ◆ Support reactive power compensation, comply with UL code.
- ◆ Module level monitoring, Max. 4 MPPTs design
- ◆ Max. DC input current 13A, adapt to 550W PV module
- ◆ Rapid shutdown function, safe and reliable
- ◆ PLC, Zigbee or WIFI communication
- ◆ IP67 protection degree, 10 years warranty



Physical Layout

|       |       |       |       |
|-------|-------|-------|-------|
| 0W    | 200 W | 180 W | 150 W |
| 170 W | 170 W | 280 W | 250 W |
| 270 W | 280 W | 260 W | 240 W |





# World-Class Components Suppliers

Deye chooses world-class suppliers to ensure the high quality of its products.

MOSFET, IGBT



## Complete Manufacturing System

IC



Capacitor, Inductor



Diode



Relay



FAN



# Deye Inverter Portfolio



Single Phase  
String Inverter



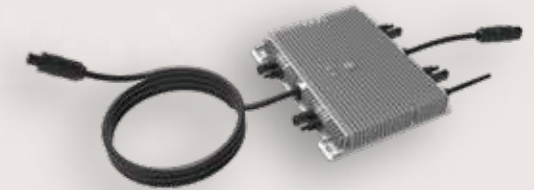
Three Phase  
String Inverter



Three Phase  
String Inverter (LV)



Single Phase  
Hybrid Inverter



Microinverter



Three Phase  
Hybrid Inverter






Accessory &  
monitoring

# Hybrid Inverter

SUN- 3.6 / 5 / 6 K-SG03LP1-EU



-  Colorful touch LCD, IP65 protection degree
-  DC couple and AC couple to retrofit existing solar system
- 16** Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 135** Max. charging/discharging current of 135A
- 6** 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 | SUN-6K-SG03LP1-EU |
|--------------------------------------|---|-------------------|-------------------|
| <b>Battery Input Data</b>            |   |                   |                   |
| Battery Type                         | Lead-acid or Li-Ion   |                   |                   |
| Battery Voltage Range (V)            | 40~60   |                   |                   |
| Max. Charging Current (A)            | 90  | 120               | 135               |
| Max. Discharging Current (A)         | 90  | 120               | 135               |
| External Temperature Sensor          | Yes   |                   |                   |
| Charging Curve                       | 3 Stages / Equalization   |                   |                   |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS  |                   |                   |
| <b>PV String Input Data</b>          |   |                   |                   |
| Max. DC Input Power (W)              | 4680  | 6500              | 7800              |
| Rated PV Input Voltage (V)           | 370 (125~500)   |                   |                   |
| Start-up Voltage (V)                 | 125   |                   |                   |
| MPPT Voltage Range (V)               | 150-425   |                   |                   |
| Full Load DC Voltage Range (V)       | 300-425   |                   |                   |
| PV Input Current (A)                 | 13+13   |                   |                   |
| Max. PV I <sub>SC</sub> (A)          | 17+17   |                   |                   |
| No. of MPP Trackers                  | 2   |                   |                   |
| No. of Strings per MPP Tracker       | 1   |                   |                   |
| <b>AC Output Data</b>                |   |                   |                   |
| Rated AC Output and UPS Power (W)    | 3600  | 5000              | 6000              |
| Max. AC Output Power (W)             | 3690  | 5500              | 6600              |
| AC Output Rated Current (A)          | 16.4/15.7   | 22.7/21.7         | 27.3/26.1         |
| Max. AC Current (A)                  | 18/17.2   | 25/23.9           | 30/28.7           |
| Max. Continuous AC Passthrough (A)   | 35  |                   |                   |
| Peak Power (off grid)                | 2 time of rated power, 10 S   |                   |                   |
| Power Factor                         | 0.8 leading to 0.8 lagging  |                   |                   |
| Output Frequency and Voltage         | 50/60Hz; L/N/PE 220/230Vac (single phase)   |                   |                   |
| Grid Type                            | Single Phase  |                   |                   |
| DC injection current (mA)            | THD<3% (Linear load<1.5%)   |                   |                   |
| <b>Efficiency</b>                    |   |                   |                   |
| Max. Efficiency                      | 97.60%  |                   |                   |
| Euro Efficiency                      | 96.50%  |                   |                   |
| MPPT Efficiency                      | 99.90%  |                   |                   |
| <b>Protection</b>                    |   |                   |                   |
| Integrated                           | PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection |                   |                   |
| Output Over Voltage Protection       | DC Type II/AC Type III  |                   |                   |
| <b>Certifications and Standards</b>  |   |                   |                   |
| Grid Regulation                      | CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11   |                   |                   |
| Safety EMC / Standard                | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2  |                   |                   |
| <b>General Data</b>                  |   |                   |                   |
| Operating Temperature Range ( )      | -40~60°C, >45°C derating  |                   |                   |
| Cooling                              | Natural cooling   |                   |                   |
| Noise (dB)                           | <30 dB  |                   |                   |
| Communication with BMS               | RS485; CAN  |                   |                   |
| Weight (kg)                          | 20.5  |                   |                   |
| Size (mm)                            | 330W x 580H x 232D  |                   |                   |
| Protection Degree                    | IP65  |                   |                   |
| Installation Style                   | Wall-mounted  |                   |                   |
| Warranty                             | 5 years   |                   |                   |

# Hybrid Inverter

SUN- 8 K-SG01LP1-EU



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

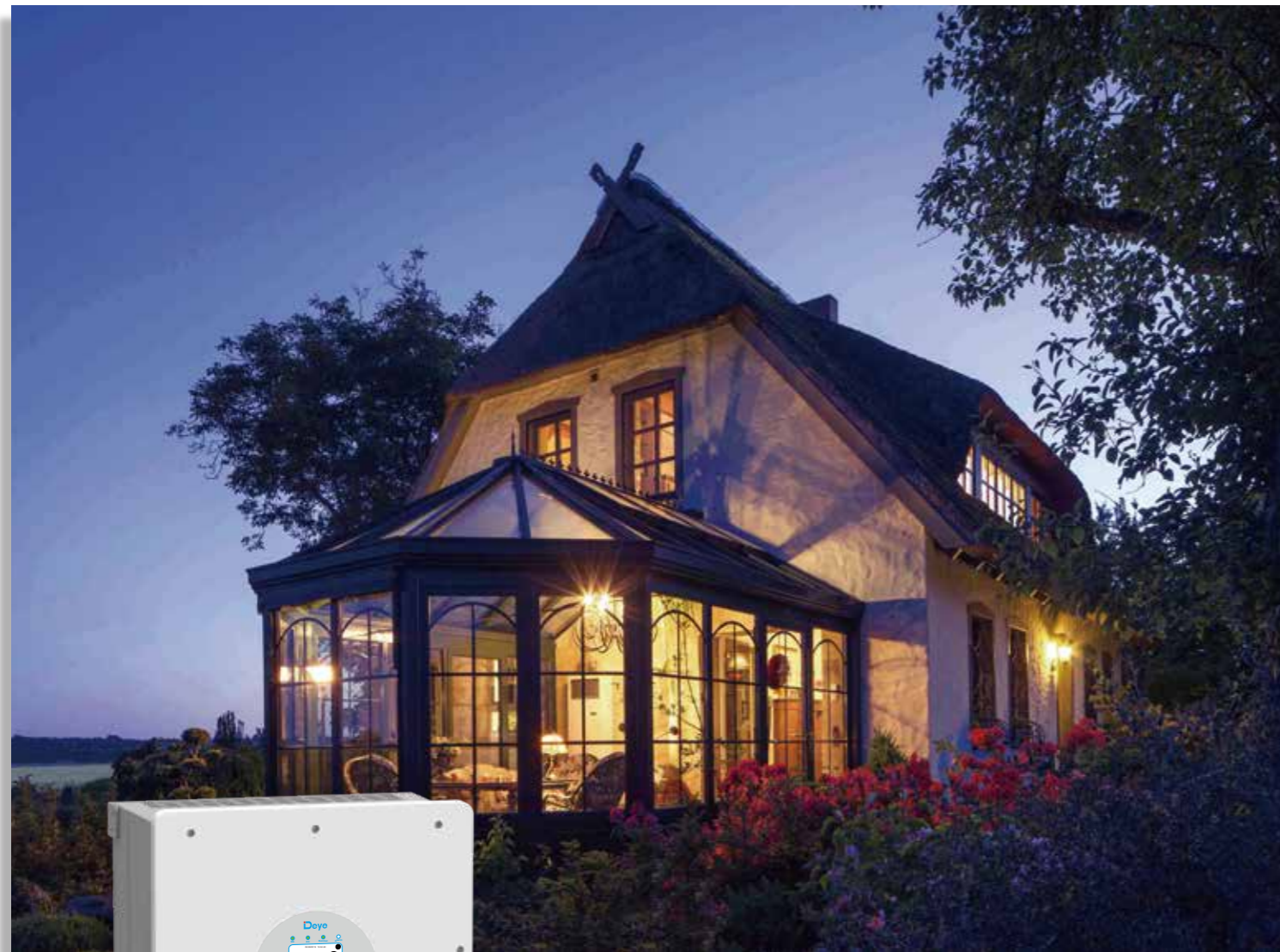
## Technical Data




| Model                                | SUN-8K-SG01LP1-US/EU  |
|--------------------------------------|---|
| <b>Battery Input Data</b>            |   |
| Battery Type                         | Lead-acid or Li-Ion   |
| Battery Voltage Range (V)            | 40~60   |
| Max. Charging Current (A)            | 190   |
| Max. Discharging Current (A)         | 190   |
| External Temperature Sensor          | Yes   |
| Charging Curve                       | 3 Stages / Equalization   |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS  |
| <b>PV String Input Data</b>          |   |
| Max. DC Input Power (W)              | 10400   |
| Rated PV Input Voltage (V)           | 370 (125~500)   |
| Start-up Voltage (V)                 | 125   |
| MPPT Voltage Range (V)               | 150-425   |
| Full Load DC Voltage Range (V)       | 200-425   |
| PV Input Current (A)                 | 26+26   |
| Max. PV ISC (A)                      | 44+44   |
| Number of MPPT / Strings per MPPT    | 2/2+2   |
| <b>AC Output Data</b>                |   |
| Rated AC Output and UPS Power (W)    | 8000  |
| Max. AC Output Power (W)             | 8800  |
| AC Output Rated Current (A)          | 36.4  |
| Max. AC Current (A)                  | 40  |
| Max. Continuous AC Passthrough (A)   | 50  |
| Peak Power (off grid)                | 2 time of rated power, 10 S   |
| Power Factor                         | 0.8 leading to 0.8 lagging  |
| Output Frequency and Voltage         | 50 / 60Hz; L1/L2/N(PE) 120/240Vac (split phase), 208Vac (2/3 phase), L/N/PE 220/230Vac (single phase)   |
| Grid Type                            | Split phase; 2/3 phase; Single Phase  |
| DC injection current (mA)            | THD<3% (Linear load<1.5%)   |
| <b>Efficiency</b>                    |   |
| Max. Efficiency                      | 97.60%  |
| Euro Efficiency                      | 97.00%  |
| MPPT Efficiency                      | 99.90%  |
| <b>Protection</b>                    |   |
| Integrated                           | PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection |
| Output Over Voltage Protection       | DC Type II/AC Type III  |
| <b>Certifications and Standards</b>  |   |
| Grid Regulation                      | CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11   |
| Safety EMC / Standard                | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2  |
| <b>General Data</b>                  |   |
| Operating Temperature Range ( )      | -45~60 , >45 derating   |
| Cooling                              | Smart cooling   |
| Noise (dB)                           | <30 dB  |
| Communication with BMS               | RS485; CAN  |
| Weight (kg)                          | 32  |
| Size (mm)                            | 420W×670H×233D  |
| Protection Degree                    | IP65  |
| Installation Style                   | Wall-mounted  |
| Warranty                             | 5 years   |



# Hybrid Inverter

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



-  Colorful touch LCD, IP65 protection degree
-  DC couple and AC couple to retrofit existing solar system
- 16** Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 290** Max. charging/discharging current of 290A
- 6** 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 |
|--------------------------------------|---|--------------------|--------------------|
| <b>Battery Data</b>                  |   |                    |                    |
| Battery Type                         | Lead-acid or Li-Ion   |                    |                    |
| Battery Voltage Range (V)            | 40~60   |                    |                    |
| Max. Charging Current (A)            | 220   | 250                | 290                |
| Max. Discharging Current (A)         | 220   | 250                | 290                |
| External Temperature Sensor          | Yes   |                    |                    |
| Charging Curve                       | 3 Stages / Equalization   |                    |                    |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS  |                    |                    |
| <b>PV String Input Data</b>          |   |                    |                    |
| Max. DC Input Power (W)              | 15600   | 18200              | 20800              |
| Max. DC Input Voltage (V)            | 500   |                    |                    |
| Start-up Voltage (V)                 | 125   |                    |                    |
| MPPT Range (V)                       | 150-425   |                    |                    |
| Rated DC Input Voltage (V)           | 370   |                    |                    |
| PV Input Current (A)                 | 26+26+26  |                    |                    |
| Max. PV I <sub>sc</sub> (A)          | 44+44+44  |                    |                    |
| No. of MPP Trackers                  | 3   |                    |                    |
| No. of Strings per MPP Tracker       | 2   |                    |                    |
| <b>AC Output Data</b>                |   |                    |                    |
| Rated AC Output Power (W)            | 12000   | 14000              | 16000              |
| AC Output Rated Current (A)          | 54.5/52.2   | 63.6/60.9          | 72.7/69.6          |
| Max. Continuous AC Passthrough (A)   | 100   |                    |                    |
| Peak Power (off grid)                | 2 time of rated power, 5 S  |                    |                    |
| Power Factor                         | 0.8 leading to 0.8 lagging  |                    |                    |
| Output Frequency and Voltage         | 50/60Hz; L/N/PE 220/230Vac (single phase)   |                    |                    |
| Grid Type                            | Single Phase  |                    |                    |
| DC injection current (mA)            | <0.5%1n   |                    |                    |
| <b>Backup Data</b>                   |   |                    |                    |
| Backup Power (W)                     | 10000   | 12000              | 14000              |
| Backup Rated Current (A)             | 45.5/43.5   | 54.5/52.2          | 63.6/60.9          |
| Backup UPS                           | 6ms Automatic switchover time   |                    |                    |
| <b>Efficiency</b>                    |   |                    |                    |
| Max. Efficiency                      | 97.60%  |                    |                    |
| Euro Efficiency                      | 96.50%  |                    |                    |
| MPPT Efficiency                      | 99.90%  |                    |                    |
| Integrated                           | PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection |                    |                    |
| Output Over Voltage Protection       | DC Type II/AC Type III  |                    |                    |
| <b>Certifications and Standards</b>  |   |                    |                    |
| Grid Regulation                      | CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11   |                    |                    |
| Safety EMC / Standard                | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2  |                    |                    |
| <b>General Data</b>                  |   |                    |                    |
| Operating Temperature Range ( )      | -40~60 , >45 derating   |                    |                    |
| Cooling                              | Smart cooling   |                    |                    |
| Noise (dB)                           | <30 dB  |                    |                    |
| Communication with BMS               | RS485; CAN  |                    |                    |
| Weight (kg)                          | 48.5  |                    |                    |
| Size (mm)                            | 464W×798.4H×300D  |                    |                    |
| Protection Degree                    | IP65  |                    |                    |
| Installation Style                   | Wall-mounted  |                    |                    |
| Warranty                             | 5 years   |                    |                    |
| <b>Features</b>                      |   |                    |                    |
| Max. Number of Parallel (PCS)        | 16  |                    |                    |

# Three Phase Hybrid Inverter

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



- 100** 100% unbalanced output, each phase; Max. output up to **50%** rated power
- DC** DC couple and AC couple to retrofit existing solar system
- 16** Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 240** Max. charging/discharging current of 240A
- 48** 48V low voltage battery, transformer isolation design
- 6** 6 time periods for battery charging/discharging
- Generator** Support storing energy from diesel generator

## Technical Data

| Model                                | SUN-5K<br>-SG04LP3-EU   | SUN-6K<br>-SG04LP3-EU | SUN-8K<br>-SG04LP3-EU | SUN-10K<br>-SG04LP3-EU | SUN-12K<br>-SG04LP3-EU |
|--------------------------------------|---|-----------------------|-----------------------|------------------------|------------------------|
| <b>Battery Input Data</b>            |   |                       |                       |                        |                        |
| Battery Type                         | Lead-acid or Li-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                    |
| External Temperature Sensor          | Yes   |                       |                       |                        |                        |
| Charging Curve                       | 3 Stages / Equalization   |                       |                       |                        |                        |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS  |                       |                       |                        |                        |
| <b>PV String Input Data</b>          |   |                       |                       |                        |                        |
| Max. DC Input Power (W)              | 6500  | 7800                  | 10400                 | 13000                  | 15600                  |
| Rated PV Input Voltage (V)           | 550 (160~800)   |                       |                       |                        |                        |
| Start-up Voltage (V)                 | 160   |                       |                       |                        |                        |
| MPPT Voltage Range (V)               | 200-650   |                       |                       |                        |                        |
| Full Load DC Voltage Range (V)       | 350-650   |                       |                       |                        |                        |
| PV Input Current (A)                 | 13+13   |                       |                       | 26+13                  |                        |
| Max. PV ISC (A)                      | 17+17   |                       |                       | 34+17                  |                        |
| Number of MPPT / Strings per MPPT    | 2/1+1   |                       |                       | 2/2+1                  |                        |
| <b>AC Output Data</b>                |   |                       |                       |                        |                        |
| Rated AC Output and UPS Power (W)    | 5000  | 6000                  | 8000                  | 10000                  | 12000                  |
| Max. AC Output Power (W)             | 5500  | 6600                  | 8800                  | 11000                  | 13200                  |
| AC Output Rated Current (A)          | 7.6   | 9.1                   | 12.1                  | 15.2                   | 18.2                   |
| Max. AC Current (A)                  | 11.4  | 13.6                  | 18.2                  | 22.7                   | 27.3                   |
| Max. Continuous AC Passthrough (A)   | 45  |                       |                       |                        |                        |
| Peak Power (off grid)                | 2 time of rated power, 10 S   |                       |                       |                        |                        |
| Power Factor                         | 0.8 leading to 0.8 lagging  |                       |                       |                        |                        |
| Output Frequency and Voltage         | 50/60Hz; 3L/N/PE 220/380, 230/400Vac  |                       |                       |                        |                        |
| Grid Type                            | Three Phase   |                       |                       |                        |                        |
| DC injection current (mA)            | THD<3% (Linear load<1.5%)   |                       |                       |                        |                        |
| <b>Efficiency</b>                    |   |                       |                       |                        |                        |
| Max. Efficiency                      | 97.60%  |                       |                       |                        |                        |
| Euro Efficiency                      | 97.00%  |                       |                       |                        |                        |
| MPPT Efficiency                      | 99.90%  |                       |                       |                        |                        |
| <b>Protection</b>                    |   |                       |                       |                        |                        |
| Integrated                           | PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection |                       |                       |                        |                        |
| Output Over Voltage Protection       | DC Type II/AC Type III  |                       |                       |                        |                        |
| <b>Certifications and Standards</b>  |   |                       |                       |                        |                        |
| Grid Regulation                      | CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11   |                       |                       |                        |                        |
| Safety EMC / Standard                | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2  |                       |                       |                        |                        |
| <b>General Data</b>                  |   |                       |                       |                        |                        |
| Operating Temperature Range ( )      | -45~60 , >45 derating   |                       |                       |                        |                        |
| Cooling                              | Smart cooling   |                       |                       |                        |                        |
| Noise (dB)                           | <45 dB  |                       |                       |                        |                        |
| Communication with BMS               | RS485; CAN  |                       |                       |                        |                        |
| Weight (kg)                          | 33.6  |                       |                       |                        |                        |
| Size (mm)                            | 422W x 699.3H x 279D  |                       |                       |                        |                        |
| Protection Degree                    | IP65  |                       |                       |                        |                        |
| Installation Style                   | Wall-mounted  |                       |                       |                        |                        |
| Warranty                             | 5 years   |                       |                       |                        |                        |

# Three Phase Hybrid Inverter

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



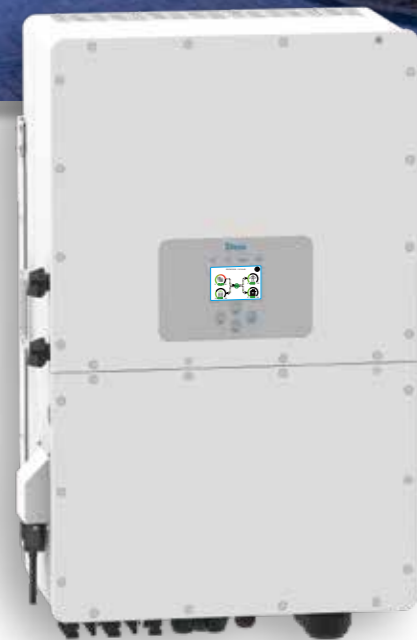
- 100** 100% unbalanced output, each phase; Max. output up to **50%** rated power
- DC** DC couple and AC couple to retrofit existing solar system
- 10** Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 37** Max. charging/discharging current of 37A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
- EG** Support storing energy from diesel generator

## Technical Data

| Model   | SUN-6K-SG01HP3-EU-AM2   | SUN-8K-SG01HP3-EU-AM2 | SUN-10K-SG01HP3-EU-AM2 | SUN-12K-SG01HP3-EU-AM2 | SUN-15K-SG01HP3-EU-AM2 | SUN-20K-SG01HP3-EU-AM2 |
|---|---|-----------------------|------------------------|------------------------|------------------------|------------------------|
| <b>Battery Input Data</b>                         |   |                       |                        |                        |                        |                        |
| Battery Type                                      | Li-Ion  |                       |                        |                        |                        |                        |
| Battery Voltage Range (V)                         | 160~700   |                       |                        |                        |                        |                        |
| Max. Charging Current (A)                         | 37  |                       |                        |                        |                        |                        |
| Max. Discharging Current (A)                      | 37  |                       |                        |                        |                        |                        |
| Number of battery input                           | 1   |                       |                        |                        |                        |                        |
| Charging Strategy for Li-Ion Battery              | Self-adaption to BMS  |                       |                        |                        |                        |                        |
| <b>PV String Input Data</b>                       |   |                       |                        |                        |                        |                        |
| Max. DC Input Power (W)                           | 7800  | 10400                 | 13000                  | 15600                  | 19500                  | 26000                  |
| Max. DC Input Voltage (V)                         | 1000  |                       |                        |                        |                        |                        |
| Start-up Voltage (V)                              | 180   |                       |                        |                        |                        |                        |
| MPPT Range (V)                                    | 150-850   |                       |                        |                        |                        |                        |
| Full Load DC Voltage Range (V)                    | 195-850   | 260-850               | 325-850                | 340-850                | 423-850                | 500-850                |
| Rated DC Input Voltage (V)                        | 600   |                       |                        |                        |                        |                        |
| PV Input Current (A)                              | 20+20   |                       |                        | 26+20                  |                        | 26+26                  |
| Max. PV I <sub>SC</sub> (A)                       | 23+23   |                       |                        | 32+23                  |                        | 32+32                  |
| No. of MPP Trackers                               | 2   |                       |                        |                        |                        |                        |
| No. of Strings per MPP Tracker                    | 1   |                       | 2+1                    |                        | 2                      |                        |
| <b>AC Output Data</b>                             |   |                       |                        |                        |                        |                        |
| Rated AC Output and UPS Power (W)                 | 6000  | 8000                  | 10000                  | 12000                  | 15000                  | 20000                  |
| Max. AC Output Power (W)                          | 6600  | 8800                  | 11000                  | 13200                  | 16500                  | 22000                  |
| AC Output Rated Current (A)                       | 9.1   | 12.2                  | 15.2                   | 18.2                   | 22.8                   | 30.3                   |
| Max. AC Current (A)                               | 13  | 18                    | 22                     | 25                     | 30                     | 35                     |
| Max. Continuous AC Passthrough (A)                | 80  |                       |                        |                        |                        |                        |
| Peak Power (off grid)                             | 1.5 time of rated power, 10 S   |                       |                        |                        |                        |                        |
| Generator input/Smart load /AC couple current (A) | 9.1 / 80 / 9.1  | 12.2 / 80 / 12.2      | 15.2 / 80 / 15.2       | 18.2 / 80 / 18.2       | 22.8 / 80 / 22.8       | 30.3 / 80 / 30.3       |
| Power Factor                                      | 0.8 leading to 0.8 lagging  |                       |                        |                        |                        |                        |
| Output Frequency and Voltage                      | 50/60Hz; 3L/N/PE 220/380, 230/400Vac  |                       |                        |                        |                        |                        |
| Grid Type   | Three Phase   |                       |                        |                        |                        |                        |
| DC injection current (mA)                         | <0.5%I <sub>n</sub>   |                       |                        |                        |                        |                        |
| <b>Efficiency</b>                                 |   |                       |                        |                        |                        |                        |
| Max. Efficiency                                   | 97.60%  |                       |                        |                        |                        |                        |
| Euro Efficiency                                   | 97.00%  |                       |                        |                        |                        |                        |
| MPPT Efficiency                                   | 99.90%  |                       |                        |                        |                        |                        |
| <b>Protection</b>                                 |   |                       |                        |                        |                        |                        |
| Integrated  | PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection |                       |                        |                        |                        |                        |
| Output Over Voltage Protection                    | DC Type II/AC Type III  |                       |                        |                        |                        |                        |
| <b>Certifications and Standards</b>               |   |                       |                        |                        |                        |                        |
| Grid Regulation                                   | EN50549, AS4777.2:2015, VDE0126-1-1, IEC61727, VDEN4105-2018, G99   |                       |                        |                        |                        |                        |
| Safety EMC / Standard                             | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2  |                       |                        |                        |                        |                        |
| <b>General Data</b>                               |   |                       |                        |                        |                        |                        |
| Operating Temperature Range ( )                   | -40~60°C, >45°C derating  |                       |                        |                        |                        |                        |
| Cooling   | Smart cooling   |                       |                        |                        |                        |                        |
| Noise (dB)  | <45 dB  |                       |                        |                        |                        |                        |
| Communication with BMS                            | RS485; CAN  |                       |                        |                        |                        |                        |
| Weight (kg)                                       | 30.5  |                       |                        |                        |                        |                        |
| Size (mm)   | 408W×638H×237D  |                       |                        |                        |                        |                        |
| Protection Degree                                 | IP65  |                       |                        |                        |                        |                        |
| Installation Style                                | Wall-mounted  |                       |                        |                        |                        |                        |
| Warranty  | 5 years   |                       |                        |                        |                        |                        |

# Three Phase Hybrid Inverter

SUN- 25 / 30 / 40 / 50 K-SG01HP3-EU-BM2/3/4



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

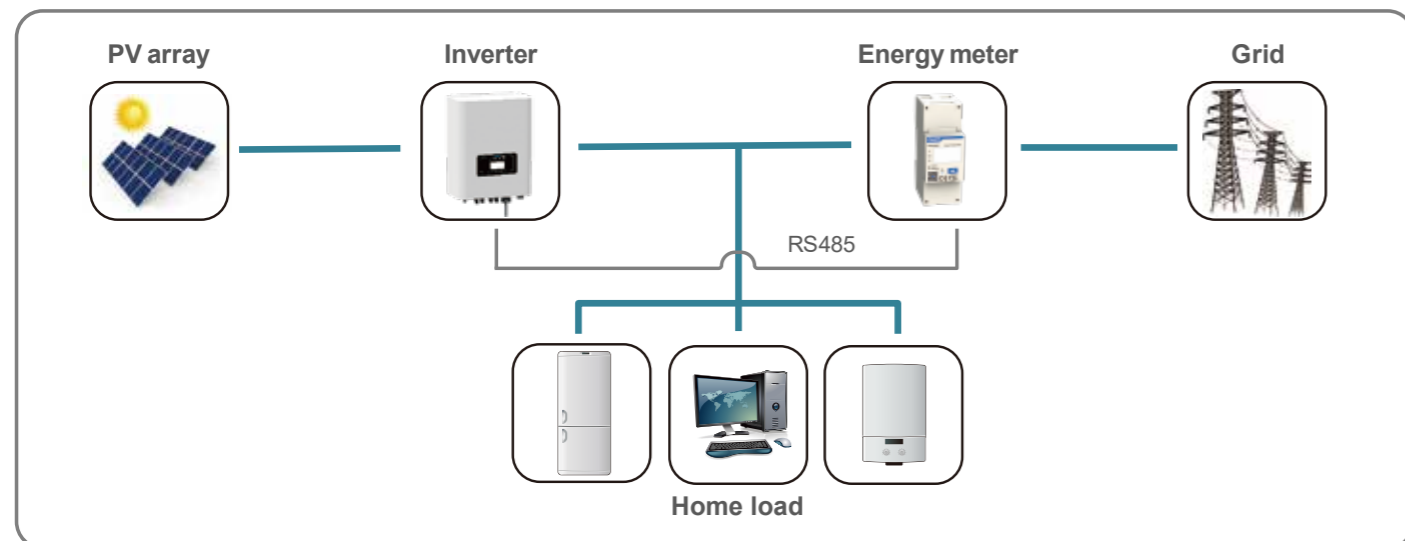
## Technical Data

| Model   | SUN-25K-SG01HP3<br>-EU-BM2  | SUN-30K-SG01HP3<br>-EU-BM3 | SUN-40K-SG01HP3<br>-EU-BM4 | SUN-50K-SG01HP3<br>-EU-BM4 |
|---|---|----------------------------|----------------------------|----------------------------|
| <b>Battery Input Data</b>                         |   |                            |                            |                            |
| Battery Type                                      | Li-Ion  |                            |                            |                            |
| Battery Voltage Range (V)                         | 160~800   |                            |                            |                            |
| Max. Charging Current (A)                         | 50+50   |                            |                            |                            |
| Max. Discharging Current (A)                      | 50+50   |                            |                            |                            |
| Number of battery input                           | 2   |                            |                            |                            |
| Charging Strategy for Li-Ion Battery              | Self-adaption to BMS  |                            |                            |                            |
| <b>PV String Input Data</b>                       |   |                            |                            |                            |
| Max. DC Input Power (W)                           | 32500   | 39000                      | 52000                      | 65000                      |
| Max. DC Input Voltage (V)                         | 1000  |                            |                            |                            |
| Start-up Voltage (V)                              | 180   |                            |                            |                            |
| MPPT Range (V)                                    | 150-850   |                            |                            |                            |
| Full Load DC Voltage Range (V)                    | 450-850   | 360-850                    | 360-850                    | 450-850                    |
| Rated DC Input Voltage (V)                        | 600   |                            |                            |                            |
| PV Input Current (A)                              | 36+36   | 36+36+36                   | 36+36+36+36                |                            |
| Max. PV I <sub>SC</sub> (A)                       | 55+55   | 55+55+55                   | 55+55+55+55                |                            |
| No. of MPP Trackers                               | 2   | 3                          | 4                          |                            |
| No. of Strings per MPP Tracker                    | 2   |                            |                            |                            |
| <b>AC Output Data</b>                             |   |                            |                            |                            |
| Rated AC Output and UPS Power (W)                 | 25000   | 30000                      | 40000                      | 50000                      |
| Max. AC Output Power (W)                          | 27500   | 33000                      | 44000                      | 55000                      |
| AC Output Rated Current (A)                       | 38  | 45.6                       | 60.8                       | 75.8                       |
| Max. AC Current (A)                               | 50  | 60                         | 70                         | 83.3                       |
| Max. Continuous AC Passthrough (A)                | 150   |                            |                            |                            |
| Peak Power (off grid)                             | 1.5 time of rated power, 10 S   |                            |                            |                            |
| Generator input/Smart load /AC couple current (A) | 38 / 150 / 38   | 45.6 / 150 / 45.6          | 60.8 / 150 / 60.8          | 75.8 / 150 / 75.8          |
| Power Factor                                      | 0.8 leading to 0.8 lagging  |                            |                            |                            |
| Output Frequency and Voltage                      | 50/60Hz; 3L/N/PE 220/380, 230/400Vac  |                            |                            |                            |
| Grid Type   | Three Phase   |                            |                            |                            |
| DC injection current (mA)                         | <0.5%I <sub>n</sub>   |                            |                            |                            |
| <b>Efficiency</b>                                 |   |                            |                            |                            |
| Max. Efficiency                                   | 97.60%  |                            |                            |                            |
| Euro Efficiency                                   | 97.00%  |                            |                            |                            |
| MPPT Efficiency                                   | 99.90%  |                            |                            |                            |
| <b>Protection</b>                                 |   |                            |                            |                            |
| Integrated  | PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection |                            |                            |                            |
| Output Over Voltage Protection                    | DC Type II/AC Type III  |                            |                            |                            |
| <b>Certifications and Standards</b>               |   |                            |                            |                            |
| Grid Regulation                                   | EN50549, AS4777.2:2015, VDE0126-1-1, IEC61727, VDEN4105-2018, G99   |                            |                            |                            |
| Safety EMC / Standard                             | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2  |                            |                            |                            |
| <b>General Data</b>                               |   |                            |                            |                            |
| Operating Temperature Range ( )                   | -40~60°C, >45°C derating  |                            |                            |                            |
| Cooling   | Smart cooling   |                            |                            |                            |
| Noise (dB)  | <45 dB  |                            |                            |                            |
| Communication with BMS                            | RS485; CAN  |                            |                            |                            |
| Weight (kg)                                       | 75  |                            |                            |                            |
| Size (mm)   | 527Wx894Hx294D  |                            |                            |                            |
| Protection Degree                                 | IP65  |                            |                            |                            |
| Installation Style                                | Wall-mounted  |                            |                            |                            |
| Warranty  | 5 years   |                            |                            |                            |

# 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 |
|--|--------------|--------------|------------------------|---------------------------|---------------------|
| <b>Battery Data</b>                          |              |              |                        |                           |                     |
| Max. direct current measurement (A)          | 60           | 80           | 100                    | 100                       | 1-9999A (with CT)   |
| Direct Voltage measurement between phases    | /            | 176-458V     | /                      | 147-480V                  | 50-950V             |
|  |              |              |                        |                           | 50-550V             |
| Direct measurement between phase and neutral | 176~264V     | 100-265V     | 176~276V               | 85~480V                   | 20-550V             |
| <b>Accuracy Class</b>                        |              |              |                        |                           |                     |
| Active power                                 | Class1       |              |                        |                           |                     |
| Reactive power                               | Class2       |              |                        |                           |                     |
| <b>Power Supply</b>                          |              |              |                        |                           |                     |
| 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%         |
| <b>Generation Specifications</b>             |              |              |                        |                           |                     |
| Dimensions (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°C~+55°C  | -10°C~+45°C  | -25°C~+55°C            |                           |                     |
| Limited working temperature range            | -40°C~+70°C  | 25°C~+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<br>1710MHZ-2690MHZ | Adaptive Network;<br>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℃~+85℃                                |  |                             |                                  |                                 |
| 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.

# Smart PV Management Platform



Deye residential monitoring solution takes great care to ensure that your PV system is in excellent operation throughout its entire life-cycle. This monitoring solution offer you details information of your power generating plant including Today energy, Monthly energy, yearly energy, total energy etc, through wireless communication with your router to the internet by a smart wifi plug. User can easily access to the monitoring page via PC web or phone APP.

Maximum your energy output while minimizing your costs. Scan the QR code to build your power station !

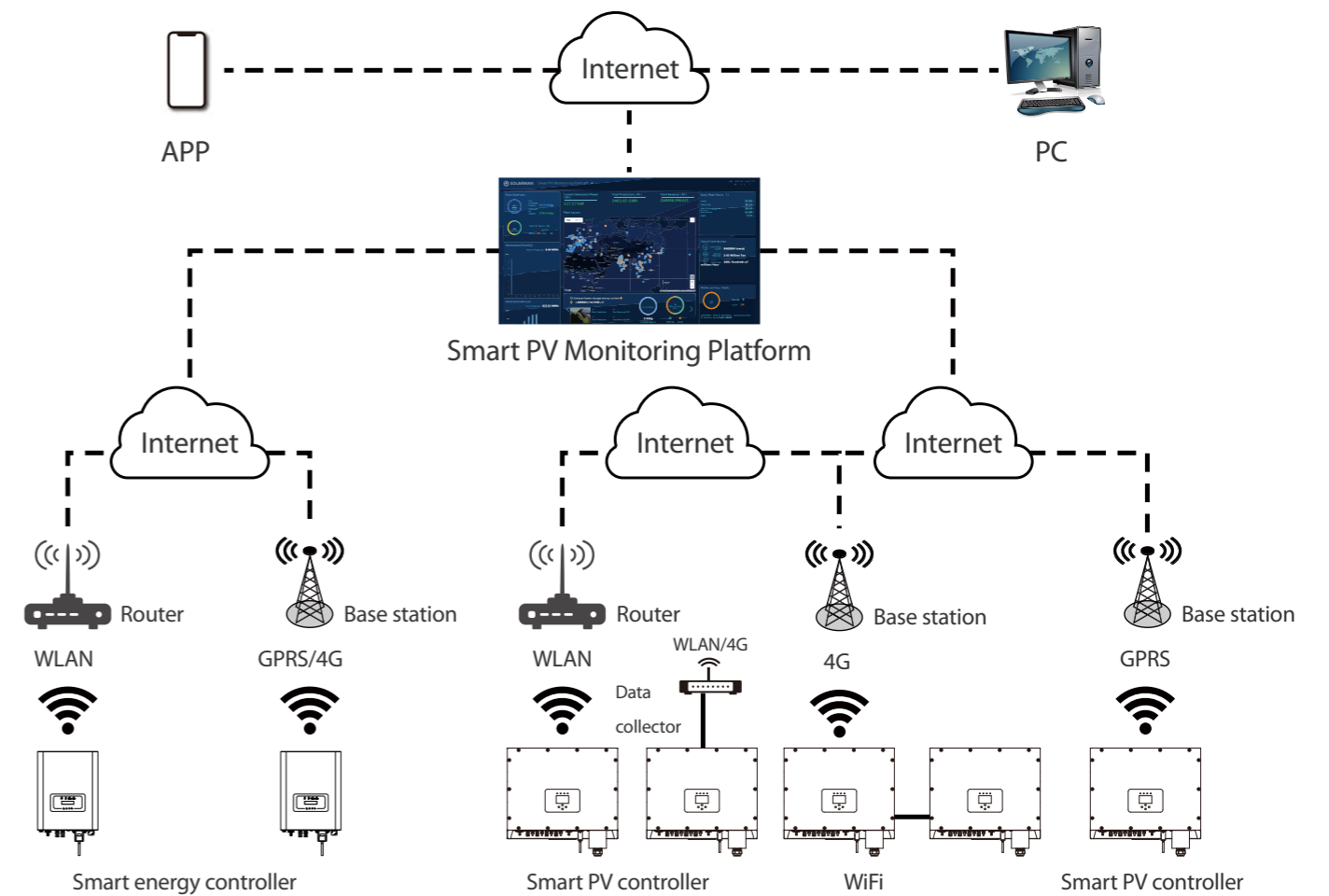


## Efficiency

- Open station supports one-click installation and registration;
- Problem support one-click dispatch and navigation.

## Safe

- Safe operation, traceable logs, etc;
- Support full lifecycle data storage to ensure data security and reliability.



# Project cases



- ▶ 5KW
- ▶ Brazil
- ▶ SUN-5K-G



- ▶ 20KW
- ▶ Brazil
- ▶ SUN-10K-G



- ▶ 50KW
- ▶ Brazil
- ▶ SUN-25K-G



- ▶ 200KW
- ▶ Brazil
- ▶ SUN-50K-G



- ▶ 200KW
- ▶ Vietnam
- ▶ SUN-50K-G



# Project cases



- ▶ 320KW
- ▶ Brazil
- ▶ SUN-80K-G



- ▶ 16KW
- ▶ South Africa
- ▶ SUN-8K-SG



- ▶ 30KW
- ▶ China
- ▶ SUN 1200G

- ▶ 32KW
- ▶ South Africa
- ▶ SUN-8K-SG



- ▶ 91KW
- ▶ USA
- ▶ SUN 1300G2