



**Solis - Global  
Leading String Inverter**

Developing technology to  
power the world with clean energy

**COMPANY  
MISSION**



# COMPANY PROFILE

Established in 2005, Ginlong (Solis) (Stock Code: 300763.SZ) is one of most experienced and largest manufacturers of solar inverters.

Cost-effective solutions for residential, commercial, and utility-scale users deliver value at every level of the solar supply chain, engaging both homeowners and businesses, as well as power producers and renewable energy investors across the globe.

Presented under the Solis brand, the company's solar inverter product line uses innovative string technology to deliver first-class reliability, validated under the most stringent international certifications.

Combining a global supply chain with world-class R&D and manufacturing capabilities, Ginlong optimizes its Solis inverters for each regional market, servicing and supporting its customers with its teams of local experts.

Proven bankability has attracted support from world leading financial institutions, ensuring solid long-term returns on investment. Working with stakeholders to accelerate the world's journey towards a more sustainable future.



**2005**  
Established in 2005

**No. 3**  
PV Inverter Shipments

**TOP500**  
Global New Energy Enterprises

**40GW+**  
Manufacturing Capacity



# COMPANY HISTORY

## 2005

Ginlong Technologies established in Ningbo, China

## 2006

One of the first inverters certified to UK G83

## 2009

First Asian string inverter to achieve USA UL1741 certification

## 2010

Second Asian inverter certified to AS4777/AS 3100

## 2011

Ginlong hosted IEC61400 second annual meeting

## 2015

Ginlong inverter installed on the Eiffel Tower in Paris

Achieved top 12 inverter sales ranking in Europe

Earned third place ranking in China PV string inverter brand value (2015-2016)

## 2016

Listed by Asia PV innovation

Awarded Best Distribution Inverter Brand by PVBL

## 2017

Granted prestigious APVIA Technology Achievement Award (2017-2021)

## 2018

Single-phase string inverters ranked 2nd in global market shares (Wood Mackenzie)

## 2019

Ginlong (Solis) listed as a Public Company Stock Code: 300763.SZ

Ginlong (Solis) Ranked Third among Asian Brands by BloombergNEF Bankability

## 2020

Three-phase string inverters ranked 3rd in global market shares (Wood Mackenzie)

Ginlong Solis won PVBL 2019 Annual Top Global PV Brand Award

## 2021

National Enterprise Technology Center

Ranked among the top 500 global new energy companies

National technological innovation demonstration enterprise

Excellent after-sales service system certification

Sixth batch of individual champions in 2021 by (MIT)

## 2022

No.3 PV Inverter Supplier Globally in Shipments in 2021

No.2 PV Inverter Supplier Among Listed Companies in Shipments in China

National laboratory qualification CNAS certification

## 2023

Ranks among the top PV brands by EuPD research for 8 consecutive years (2016-2023)





# 27 Service Centers

With 27 offices and service centers around the world, including the Australia, Brazil, China, Chile, France, Germany, India, Italy, Indonesia, Korea, Mexico, Myanmar, Malaysia, Netherlands, Philippines, Poland, Pakistan, Romania, South Africa, Spain, Sweden, Singapore, Turkey, Thailand, UK, USA and Vietnam, Solis has a well-established and expanding global presence.

|    |                 |               |                  |                      |
|----|-----------------|---------------|------------------|----------------------|
| HQ | Service Centers | Response time | Replacement time | On-site support time |
|    |                 | 2H            | 24H              | 48H                  |



# GLOBAL REACH LOCAL EXPERTISE

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### Residential Solar PV Solutions

Solis residential string inverters are cost-effective and efficient residential green power leaders, providing smarter green power solutions for your residential buildings.

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### Off-grid Energy Storage Solutions

The Solis off-grid inverter series is designed for areas without power grids or areas with frequent power outages or shutdowns/load-shedding. Supports parallel operation of up to 10 units and is compatible with oil generators. Ideal for household and small commercial applications Scenes.

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### Residential Energy Storage Solutions

The Solis residential energy storage family, covers single-phase and three-phase application scenarios. It aims to provide energy storage solutions for PV systems to achieve the goal of residential zero-carbon green electricity. The power range covers 3kW - 10kW.

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### Commercial & Industrial Solar PV Solutions

Solis' C&I string inverter product line is broad with a power range cover 25kW - 110kW, providing you with the best industry green power solutions.

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### Utility Scale Solar PV Solutions

Solis has optimized and innovated the whole process of utility solar PV solutions, integrated PV system design, digital management, and IoT technology.

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### SolisCloud: Intelligent Solar Energy System Monitoring

The SolisCloud intelligent monitoring system includes hardware and software products and is a comprehensive energy management solution. Hardware products, including data stick, data box, EPM and PLC, etc; transmit to SolisCloud online energy

## P71

### Export Power Management Solutions

In some countries, local regulations limit the amount of PV power that can be exported to the grid or allow no export. Solis offers two export limitation solutions for single and multiple inverters system.

management platform. Real-time monitoring, visualized management and remote O & M of residential, C&I and utility scale solar PV plants.

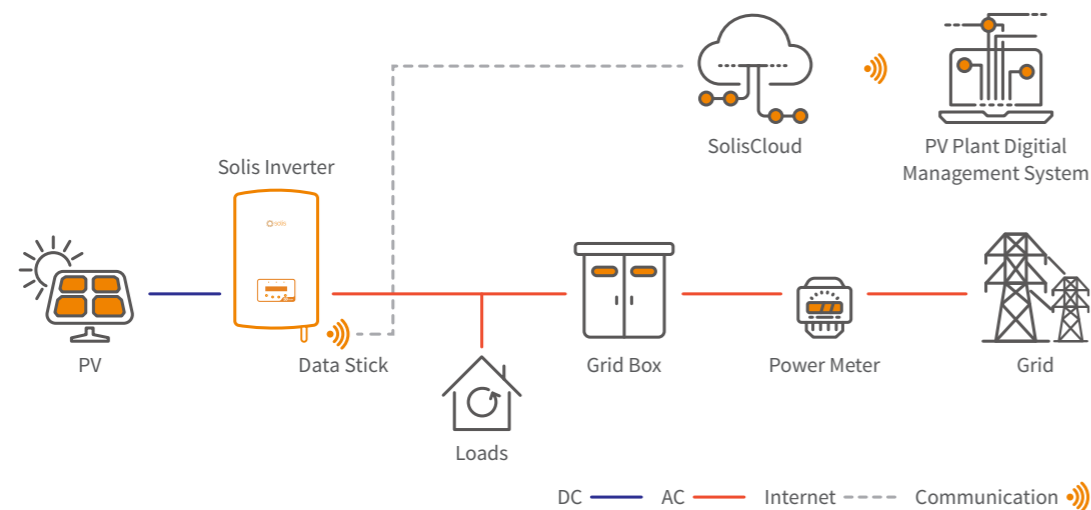
# Residential Solar PV Solutions



Solis residential string inverters are cost-effective and efficient green power leaders, providing smarter green power solutions for your residential buildings. A variety of models and solutions meet the needs of modern homes.

The portfolio includes single-phase and small three-phase string inverters, with a wide range of models, providing the best home green power solutions based on your application scenarios and specific needs. Solis Residential inverters are small and light, allowing for just one person to complete the installation. The overall design is sleek and modern, with low noise, particularly suitable for home installation without affecting people's daily activities. Via online or App, you can connect to SolisCloud for intelligent energy management. Simple operation and convenient. Solis residential solutions are technically advanced, flexible and simplify integration with digital home automation equipment and smart grids.

## Residential Solar PV Solution



### Models:

S6-GR1P(0.7-3.6)K-M / S6-GR1P(2.5-6)K  
S6-GR1P(2.5-6)K-S / S5-GR3P(3-20)K

### Output:

0.7 kW - 20 kW

## S6-GR1P(0.7-3.6)K-M

### Solis Mini Series Inverters

#### Features:

- Max. efficiency 97.3%
- String current up to 14A
- Super high frequency switching technology
- Wide voltage range and low startup voltage
- Precise MPPT algorithm
- Intergrated Export Power Manager (EPM)
- AFCI protection, proactively reduces fire risk
- Compact and lightweight
- Friendly and adaptable connection to the grid

#### Models:

S6-GR1P0.7K-M / S6-GR1P1K-M

S6-GR1P1.5K-M / S6-GR1P2K-M

S6-GR1P2.5K-M / S6-GR1P3K-M

S6-GR1P3.6K-M



360° View



## DATASHEET

### S6-GR1P(0.7-3.6)K-M

| Models  | 0.7K   | 1K            | 1.5K          | 2K                 | 2.5K            | 3K            | 3.6K    |
|---|--|---------------|---------------|--------------------|-----------------|---------------|---------|
| <b>Input DC</b>                                   |  |               |               |                    |                 |               |         |
| Recommended max. PV power                         | 1.1 kW   | 1.5 kW        | 2.3 kW        | 3 kW               | 3.8 kW          | 4.5 kW        | 5.4 kW  |
| Max. input voltage                                | 600 V  |               |               |                    |                 |               |         |
| Rated voltage                                     | 200 V  |               |               | 330 V              |                 |               |         |
| Start-up voltage                                  | 60 V   |               |               | 90 V               |                 |               |         |
| MPPT voltage range                                | 50-500 V   |               |               | 80-500 V           |                 |               |         |
| Max. input current                                |  |               |               | 14 A               |                 |               | 19 A    |
| Max. short circuit current                        |  |               |               | 22 A               |                 |               | 24 A    |
| MPPT number/Max. input strings number             |  |               |               | 1/1                |                 |               | 1/2     |
| <b>Output AC</b>                                  |  |               |               |                    |                 |               |         |
| Rated output power                                | 0.7 kW   | 1 kW          | 1.5 kW        | 2 kW               | 2.5 kW          | 3 kW          | 3.6 kW  |
| Max. apparent output power                        | 0.77 kVA   | 1.1 kVA       | 1.65 kVA      | 2.2 kVA            | 2.75 kVA        | 3.3 kVA       | 3.6 kVA |
| Max. output power                                 | 0.77 kW  | 1.1 kW        | 1.65 kW       | 2.2 kW             | 2.75 kW         | 3.3 kW        | 3.6 kW  |
| Rated grid voltage                                | 1/N/PE, 220 V / 230 V  |               |               |                    |                 |               |         |
| Rated grid frequency                              | 50 Hz  |               |               |                    |                 |               |         |
| Rated grid output current                         | 3.2 A / 3.0 A  | 4.5 A / 4.3 A | 6.8 A / 6.5 A | 9.1 A / 8.7 A      | 11.4 A / 10.9 A | 13.6 A / 13 A | 16 A    |
| Max. output current                               | 4.4 A  | 5.2 A         | 8.1 A         | 10.5 A             | 13.3 A          | 15.7 A        | 16 A    |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)  |               |               |                    |                 |               |         |
| THDi  | <3%  |               |               |                    |                 |               |         |
| <b>Efficiency</b>                                 |  |               |               |                    |                 |               |         |
| Max. efficiency                                   | 96.6%  |               | 96.6%         | 97.1%              | 97.1%           |               | 97.3%   |
| EU efficiency                                     | 95.3%  |               | 95.4%         | 96.6%              | 96.7%           |               | 96.8%   |
| <b>Protection</b>                                 |  |               |               |                    |                 |               |         |
| DC reverse-polarity protection                    |  |               |               | Yes                |                 |               |         |
| Short circuit protection                          |  |               |               | Yes                |                 |               |         |
| Output over current protection                    |  |               |               | Yes                |                 |               |         |
| Surge protection                                  |  |               |               | Yes                |                 |               |         |
| Grid monitoring                                   |  |               |               | Yes                |                 |               |         |
| Anti-islanding protection                         |  |               |               | Yes                |                 |               |         |
| Temperature protection                            |  |               |               | Yes                |                 |               |         |
| Integrated AFCI (DC arc-fault circuit protection) |  |               |               | Yes <sup>(1)</sup> |                 |               |         |
| Integrated DC switch                              |  |               |               | Optional           |                 |               |         |
| <b>General Data</b>                               |  |               |               |                    |                 |               |         |
| Dimensions (W*H*D)                                |  |               |               | 310*373*160 mm     |                 |               |         |
| Weight  |  |               |               | 7.4 kg             |                 | 7.7 kg        |         |
| Topology  | Transformerless  |               |               |                    |                 |               |         |
| Self-consumption (night)                          | <1 W   |               |               |                    |                 |               |         |
| Operating ambient temperature range               | -25 ~ +60°C  |               |               |                    |                 |               |         |
| Relative humidity                                 | 0-100%   |               |               |                    |                 |               |         |
| Ingress protection                                | IP66   |               |               |                    |                 |               |         |
| Cooling concept                                   | Natural convection   |               |               |                    |                 |               |         |
| Max. operation altitude                           | 4000 m   |               |               |                    |                 |               |         |
| Grid connection standard                          | G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, RD 1699 / RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |               |               |                    |                 |               |         |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4   |               |               |                    |                 |               |         |
| <b>Features</b>                                   |  |               |               |                    |                 |               |         |
| DC connection                                     | MC4 connector  |               |               |                    |                 |               |         |
| AC connection                                     | Quick connection plug  |               |               |                    |                 |               |         |
| Display   | LCD  |               |               |                    |                 |               |         |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS   |               |               |                    |                 |               |         |

(1) Activation required.

## S6-GR1P(2.5-6)K

### Solis Single Phase Inverters

#### Features:

- Max. efficiency 97.7%
- String current up to 14A
- Super high frequency switching technology
- Wide voltage range and low startup voltage
- 2 MPPT design with precise MPPT algorithm
- Intergrated Export Power Manager (EPM)
- AFCI protection, proactively reduces fire risk
- Compact and lightweight
- Friendly and adaptable connection to the grid

#### Models:

S6-GR1P2.5K / S6-GR1P3K

S6-GR1P3.6K / S6-GR1P4K

S6-GR1P4.6K / S6-GR1P5K

S6-GR1P6K



360° View



## DATASHEET

## S6-GR1P(2.5-6)K

| Models  | 2.5K  | 3K              | 3.6K            | 4K                 | 4.6K            | 5K              | 6K     |
|---|---|-----------------|-----------------|--------------------|-----------------|-----------------|--------|
| <b>Input DC</b>                                   |   |                 |                 |                    |                 |                 |        |
| Recommended max. PV power                         | 3.75 kW   | 4.5 kW          | 5.4 kW          | 6 kW               | 6.9 kW          | 7.5 kW          | 9 kW   |
| Max. input voltage                                | 550 V   | 600 V           |                 |                    |                 |                 |        |
| Rated voltage                                     | 250 V   | 330 V           |                 |                    |                 |                 |        |
| Start-up voltage                                  | 60 V  | 120 V           |                 |                    |                 |                 |        |
| MPPT voltage range                                | 50-450 V  | 90-520 V        |                 |                    |                 |                 |        |
| Max. input current                                |   |                 |                 | 14 A / 14 A        |                 |                 |        |
| Max. short circuit current                        |   |                 |                 | 22 A / 22 A        |                 |                 |        |
| MPPT number/Max. input strings number             |   |                 |                 | 2/2                |                 |                 |        |
| <b>Output AC</b>                                  |   |                 |                 |                    |                 |                 |        |
| Rated output power                                | 2.5 kW  | 3 kW            | 3.6 kW          | 4 kW               | 4.6 kW          | 5 kW            | 6 kW   |
| Max. apparent output power                        | 2.8 kVA   | 3.3 kVA         | 4 kVA           | 4.4 kVA            | 5 kVA           | 5 kVA           | 6 kVA  |
| Max. output power                                 | 2.8 kW  | 3.3 kW          | 4 kW            | 4.4 kW             | 5 kW            | 5 kW            | 6 kW   |
| Rated grid voltage                                | 1/N/PE, 220 V / 230 V   |                 |                 |                    |                 |                 |        |
| Rated grid frequency                              | 50 Hz   |                 |                 |                    |                 |                 |        |
| Rated grid output current                         | 11.4 A / 10.9 A   | 13.6 A / 13.0 A | 16.0 A / 15.7 A | 18.2 A / 17.4 A    | 20.9 A / 20.0 A | 22.7 A / 21.7 A | 27.3 A |
| Max. output current                               | 13.3 A  | 15.7 A          | 16.0 A          | 21.0 A             | 23.8 A          | 25.0 A          | 27.3 A |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)   |                 |                 |                    |                 |                 |        |
| THDi  | <3%   |                 |                 |                    |                 |                 |        |
| <b>Efficiency</b>                                 |   |                 |                 |                    |                 |                 |        |
| Max. efficiency                                   | 97.3%   | 97.3%           |                 |                    | 97.6%           | 97.7%           |        |
| EU efficiency                                     | 96.5%   | 96.6%           |                 |                    | 97.1%           | 97.1%           |        |
| <b>Protection</b>                                 |   |                 |                 |                    |                 |                 |        |
| DC reverse-polarity protection                    |   |                 |                 | Yes                |                 |                 |        |
| Short circuit protection                          |   |                 |                 | Yes                |                 |                 |        |
| Output over current protection                    |   |                 |                 | Yes                |                 |                 |        |
| Surge protection                                  |   |                 |                 | Yes                |                 |                 |        |
| Grid monitoring                                   |   |                 |                 | Yes                |                 |                 |        |
| Anti-islanding protection                         |   |                 |                 | Yes                |                 |                 |        |
| Temperature protection                            |   |                 |                 | Yes                |                 |                 |        |
| Integrated AFCI (DC arc-fault circuit protection) |   |                 |                 | Yes <sup>(1)</sup> |                 |                 |        |
| Integrated DC switch                              |   |                 |                 | Optional           |                 |                 |        |
| <b>General Data</b>                               |   |                 |                 |                    |                 |                 |        |
| Dimensions (W*H*D)                                |   |                 |                 | 310*543*160 mm     |                 |                 |        |
| Weight  | 11 kg   | 11.2 kg         | 12 kg           |                    |                 |                 |        |
| Topology  | Transformerless   |                 |                 |                    |                 |                 |        |
| Self-consumption (night)                          | <1 W  |                 |                 |                    |                 |                 |        |
| Operating ambient temperature range               | -25 ~ +60°C   |                 |                 |                    |                 |                 |        |
| Relative humidity                                 | 0-100%  |                 |                 |                    |                 |                 |        |
| Ingress protection                                | IP66  |                 |                 |                    |                 |                 |        |
| Cooling concept                                   | Natural convection  |                 |                 |                    |                 |                 |        |
| Max. operation altitude                           | 4000 m  |                 |                 |                    |                 |                 |        |
| Grid connection standard                          | G98 <sup>(2)</sup> or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, RD 1699 / RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |                 |                 |                    |                 |                 |        |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-3  |                 |                 |                    |                 |                 |        |
| <b>Features</b>                                   |   |                 |                 |                    |                 |                 |        |
| DC connection                                     | MC4 connector   |                 |                 |                    |                 |                 |        |
| AC connection                                     | Quick connection plug   |                 |                 |                    |                 |                 |        |
| Display   | LCD   |                 |                 |                    |                 |                 |        |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS  |                 |                 |                    |                 |                 |        |

(1) Activation required. (2) G98 for 2.5K-3.6K.

## S6-GR1P(2.5-6)K-S

### Solis Single Phase Inverters

#### Features:

- String current up to 16A
- Integrated with zero export power control function
- Light weight with compact design for easy installation
- 2 MPPT design with precise MPPT algorithm

#### Models:

S6-GR1P2.5K-S / S6-GR1P3K-S

S6-GR1P3.6K-S / S6-GR1P4K-S

S6-GR1P4.6K-S / S6-GR1P5K-S

S6-GR1P6K-S



## DATASHEET

### S6-GR1P(2.5-6)K-S

| Models  | 2.5K   | 3K            | 3.6K          | 4K              | 4.6K          | 5K              | 6K              |
|---|--|---------------|---------------|-----------------|---------------|-----------------|-----------------|
| <b>Input DC</b>                                   |  |               |               |                 |               |                 |                 |
| Recommended max. PV power                         | 3.75 kW  | 4.5 kW        | 5.4 kW        | 6 kW            | 6.9 kW        | 7.5 kW          | 9 kW            |
| Max. input voltage                                | 550 V  |               |               |                 |               |                 |                 |
| Rated voltage                                     | 250 V  | 330 V         |               |                 |               |                 |                 |
| Start-up voltage                                  | 60 V   | 100 V         |               |                 |               |                 |                 |
| MPPT voltage range                                | 50-550 V   | 90-550 V      |               |                 |               |                 |                 |
| Max. input current                                | 16 A / 16 A  |               |               |                 |               |                 |                 |
| Max. short circuit current                        | 22 A / 22 A  |               |               |                 |               |                 |                 |
| MPPT number/Max. input strings number             | 2/2  |               |               |                 |               |                 |                 |
| <b>Output AC</b>                                  |  |               |               |                 |               |                 |                 |
| Rated output power                                | 2.5 kW   | 3 kW          | 3.6 kW        | 4 kW            | 4.6 kW        | 5 kW            | 6 kW            |
| Max. apparent output power                        | 2.5 kVA  | 3 kVA         | 3.6 kVA       | 4 kVA           | 4.6 kVA       | 5 kVA           | 6 kVA           |
| Max. output power                                 | 2.5 kW   | 3 kW          | 3.6 kW        | 4 kW            | 4.6 kW        | 5 kW            | 6 kW            |
| Rated grid voltage                                | 1/N/PE, 220 V / 230 V  |               |               |                 |               |                 |                 |
| Rated grid frequency                              | 50 Hz  |               |               |                 |               |                 |                 |
| Rated grid output current                         | 11.4 A / 10.9 A  | 13.6 A / 13 A | 16 A / 15.7 A | 18.2 A / 17.4 A | 20.9 A / 20 A | 22.7 A / 21.7 A | 27.3 A / 26.1 A |
| Max. output current                               | 11.4 A   | 13.6 A        | 16 A          | 18.2 A          | 20.9 A        | 22.7 A          | 27.3 A          |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)  |               |               |                 |               |                 |                 |
| THDi  | <3%  |               |               |                 |               |                 |                 |
| <b>Efficiency</b>                                 |  |               |               |                 |               |                 |                 |
| Max. efficiency                                   | 97.3%  | 97.3%         | 97.6%         |                 | 97.7%         |                 |                 |
| EU efficiency                                     | 96.5%  | 96.6%         | 97.1%         |                 | 97.1%         |                 |                 |
| <b>Protection</b>                                 |  |               |               |                 |               |                 |                 |
| DC reverse-polarity protection                    | Yes  |               |               |                 |               |                 |                 |
| Short circuit protection                          | Yes  |               |               |                 |               |                 |                 |
| Output over current protection                    | Yes  |               |               |                 |               |                 |                 |
| Surge protection                                  | Yes  |               |               |                 |               |                 |                 |
| Grid monitoring                                   | Yes  |               |               |                 |               |                 |                 |
| Anti-islanding protection                         | Yes  |               |               |                 |               |                 |                 |
| Temperature protection                            | Yes  |               |               |                 |               |                 |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>   |               |               |                 |               |                 |                 |
| Integrated DC switch                              | Yes  |               |               |                 |               |                 |                 |
| <b>General Data</b>                               |  |               |               |                 |               |                 |                 |
| Dimensions (W*H*D)                                | 330*371*161 mm   |               |               |                 |               |                 |                 |
| Weight  | 8.2 kg   |               |               |                 | 9 kg          |                 |                 |
| Topology  | Transformerless  |               |               |                 |               |                 |                 |
| Self-consumption (night)                          | <1 W   |               |               |                 |               |                 |                 |
| Operating ambient temperature range               | -25 ~ +60°C  |               |               |                 |               |                 |                 |
| Relative humidity                                 | 0-100%   |               |               |                 |               |                 |                 |
| Ingress protection                                | IP66   |               |               |                 |               |                 |                 |
| Cooling concept                                   | Natural convection   |               |               |                 |               |                 |                 |
| Max. operation altitude                           | 4000 m   |               |               |                 |               |                 |                 |
| Grid connection standard                          | G98 <sup>(2)</sup> or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, RD 1699 / RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC60068, IEC 61683, EN 50530, MEA, PEA |               |               |                 |               |                 |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-3   |               |               |                 |               |                 |                 |
| <b>Features</b>                                   |  |               |               |                 |               |                 |                 |
| DC connection                                     | MC4 connector  |               |               |                 |               |                 |                 |
| AC connection                                     | Quick connection plug  |               |               |                 |               |                 |                 |
| Display   | LED + APP  |               |               |                 |               |                 |                 |
| Communication                                     | RS485, USB, Optional: Wi-Fi, GPRS  |               |               |                 |               |                 |                 |

(1) Activation required. (2) G98 for 2.5K-3.6K.

## S5-GR3P(3-20)K

### Solis Three Phase Inverters

#### Efficient

- Max. efficiency 98.7%
- String current up to 16A
- Wide voltage range and low startup voltage

#### Smart

- Supports export power control
- Supports RS485, WiFi, GPRS
- Scan to register on SolisCloud, supports remote upgrade and control

#### Safe

- IP66
- AFCI protection, proactively reduces fire risk
- Automatic voltage stabilization technology in weak grid conditions

#### Economic

- Compact design, simple installation and maintenance
- > 150% DC/AC ratio
- Supports high power modules for lower installation costs

#### Models:

S5-GR3P3K / S5-GR3P4K

S5-GR3P5K / S5-GR3P6K

S5-GR3P8K / S5-GR3P9K

S5-GR3P10K / S5-GR3P12K

S5-GR3P13K / S5-GR3P15K

S5-GR3P17K / S5-GR3P20K



360° View

## DATASHEET

## S5-GR3P(3-20)K

| Models  | 3K  | 4K            | 5K            | 6K            | 8K              | 9K              | 10K                               | 12K             | 13K             | 15K             | 17K             | 20K             |
|---|---|---------------|---------------|---------------|-----------------|-----------------|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Input DC</b>                                   |   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Recommended max. PV power                         | 4.5 kW  | 6 kW          | 7.5 kW        | 9 kW          | 12 kW           | 13.5 kW         | 15 kW                             | 18 kW           | 19.5 kW         | 22.5 kW         | 25.5 kW         | 30 kW           |
| Max. input voltage                                | 1100 V  |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Rated voltage                                     | 600 V   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Start-up voltage                                  | 180 V   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| MPPT voltage range                                | 160-1000 V  |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Max. input current                                | 16 A / 16 A   |               |               |               |                 |                 | 32 A / 32 A                       |                 |                 |                 |                 |                 |
| Max. short circuit current                        | 20 A / 20 A   |               |               |               |                 |                 | 40 A / 40 A                       |                 |                 |                 |                 |                 |
| MPPT number/Max. input strings number             | 2/2   |               |               |               |                 |                 | 2/4                               |                 |                 |                 |                 |                 |
| <b>Output AC</b>                                  |   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Rated output power                                | 3 kW  | 4 kW          | 5 kW          | 6 kW          | 8 kW            | 9 kW            | 10 kW                             | 12 kW           | 13 kW           | 15 kW           | 17 kW           | 20 kW           |
| Max. apparent output power                        | 3.3 kVA   | 4.4 kVA       | 5.5 kVA       | 6.6 kVA       | 8.8 kVA         | 9.9 kVA         | 11 kVA                            | 13.2 kVA        | 14.3 kVA        | 16.5 kVA        | 18.7 kVA        | 22 kVA          |
| Max. output power                                 | 3.3 kW  | 4.4 kW        | 5.5 kW        | 6.6 kW        | 8.8 kW          | 9.9 kW          | 11 kW                             | 13.2 kW         | 14.3 kW         | 16.5 kW         | 18.7 kW         | 22 kW           |
| Rated grid voltage                                | 3/N/PE, 220 V / 380 V, 230 V / 400 V  |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Rated grid frequency                              | 50 Hz   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Rated grid output current                         | 4.6 A / 4.3 A   | 6.1 A / 5.8 A | 7.6 A / 7.2 A | 9.1 A / 8.7 A | 12.2 A / 11.5 A | 13.7 A / 13.0 A | 15.2 A / 14.4 A                   | 18.2 A / 17.3 A | 19.8 A / 18.8 A | 22.8 A / 21.7 A | 25.8 A / 24.6 A | 30.4 A / 28.9 A |
| Max. output current                               | 4.7 A   | 6.4 A         | 7.9 A         | 9.5 A         | 12.7 A          | 14.3 A          | 15.9 A                            | 19.1 A          | 20.7 A          | 23.8 A          | 27 A            | 31.8 A          |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| THDi  | <2%   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| <b>Efficiency</b>                                 |   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Max. efficiency                                   | 98.3%   |               |               | 98.5%         |                 |                 | 98.6%                             |                 |                 | 98.7%           |                 |                 |
| EU efficiency                                     | 97.7%   |               |               | 97.9%         |                 |                 | 98.0%                             |                 |                 | 98.1%           |                 |                 |
| <b>Protection</b>                                 |   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| DC reverse-polarity protection                    | Yes   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Short circuit protection                          | Yes   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Output over current protection                    | Yes   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Surge protection                                  | Yes   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Grid monitoring                                   | Yes   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Anti-islanding protection                         | Yes   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Temperature protection                            | Yes   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>  |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Integrated DC switch                              | Optional  |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| <b>General Data</b>                               |   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Dimensions (W*H*D)                                | 310*563*219 mm  |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Weight  | 17.8 kg   |               |               |               |                 |                 | 18.8 kg                           |                 |                 | 20 kg           |                 |                 |
| Topology  | Transformerless   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Self-consumption (night)                          | <1 W  |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Operating ambient temperature range               | -25 ~ +60°C   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Relative humidity                                 | 0-100%  |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Ingress protection                                | IP66  |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Cooling concept                                   | Natural convection  |               |               |               |                 |                 | Intelligent redundant fan-cooling |                 |                 |                 |                 |                 |
| Max. operation altitude                           | 4000 m  |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Grid connection standard                          | G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, RD 1699 / RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530 |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4  |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| <b>Features</b>                                   |   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| DC connection                                     | MC4 connector   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| AC connection                                     | Quick connection plug   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Display   | LCD   |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS  |               |               |               |                 |                 |                                   |                 |                 |                 |                 |                 |

(1) Activation required.

# Residential Power Plant Case Study



📍 Finland  
⚡ 6.7kW 📦 S5-GR3P(3-20)K



📍 USA  
⚡ 16kW 📦 Solis-(2.5-6)K-4G-US

## Microgrid Project in Hebei Province

This microgrid project in Hebei province uses Solis-3P(12-25)K-5G and Solis-(25-50)K-5G inverters. Through the configuration of an energy storage system, the project adopts the mode of "Self-use, surplus electricity exported & sold back to the grid". This has realized consumption of new green energy to the region and delivers a stable income of about 1.6 million yuan annually.

In addition, the system is monitored in real-time via the SolisCloud platform which offers intelligent digital functions, online system control, along with accurate operation and maintenance. This in turn makes power station management more efficient, convenient and cost effective.

This project demonstrates the technological progress and expansion of the solar industry, accelerating the development of clean, low-carbon energy.



📍 Australia  
⚡ 8.2kW 📦 Solis-1P(2.5-6)K-4G



📍 UK  
⚡ 2.8kW 📦 S6-GR1P(2.5-6)K



📍 China  
⚡ 2.7MW  
📦 GCI-3P(12-25)K-5G



# Residential Energy Storage Solutions



The Solis residential energy storage family has abundant products, covering single-phase and three-phase application scenarios. It aims to provide energy storage solutions for PV systems to achieve the goal of real residential zero-carbon green electricity. The power range covers 3kW - 10kW. We can according to the requirements of your project application scenarios, rely on our flexible products to provide you with the best residential zero-carbon green power solutions.

**Models:**

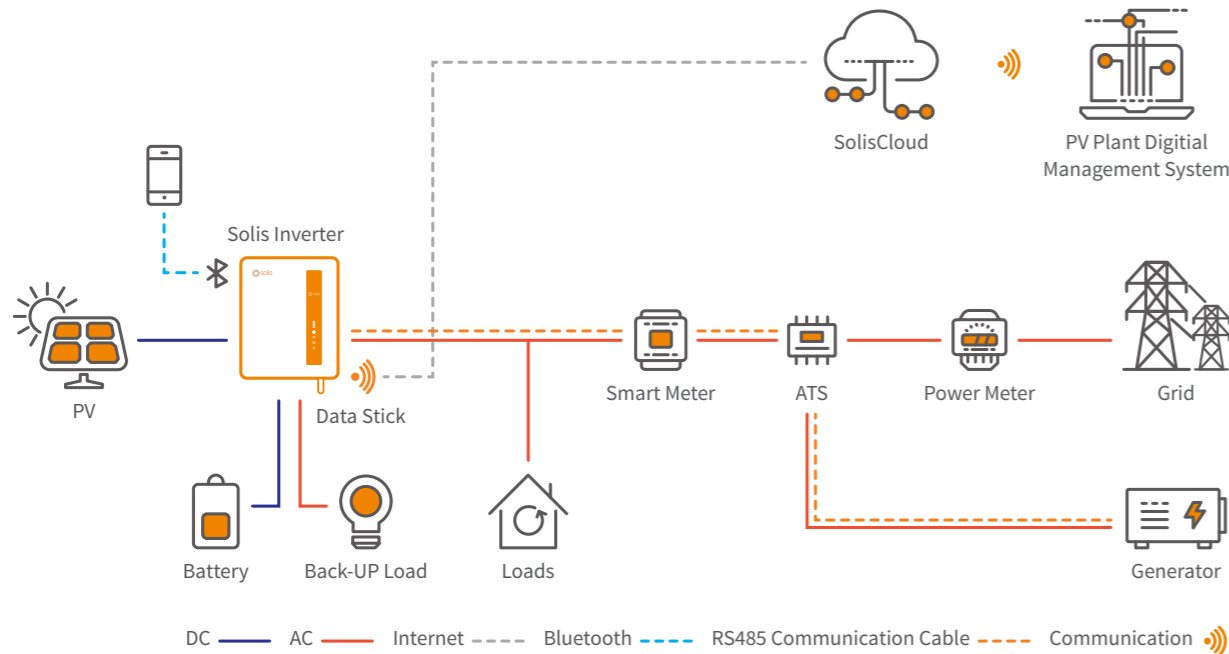
- S5-EH1P(3-6)K-L
- S6-EH1P(3-6)K-L-EU
- S6-EH1P(3-6)K-L-PRO
- S6-EH1P8K-L-PRO
- RHI-3P(5-10)K-HVES-5G
- S6-EH3P(5-10)K2-H
- S6-EH3P(5-10)K-H-EU
- RAI-3K-48ES-5G

**Output:**

3 kW - 10 kW

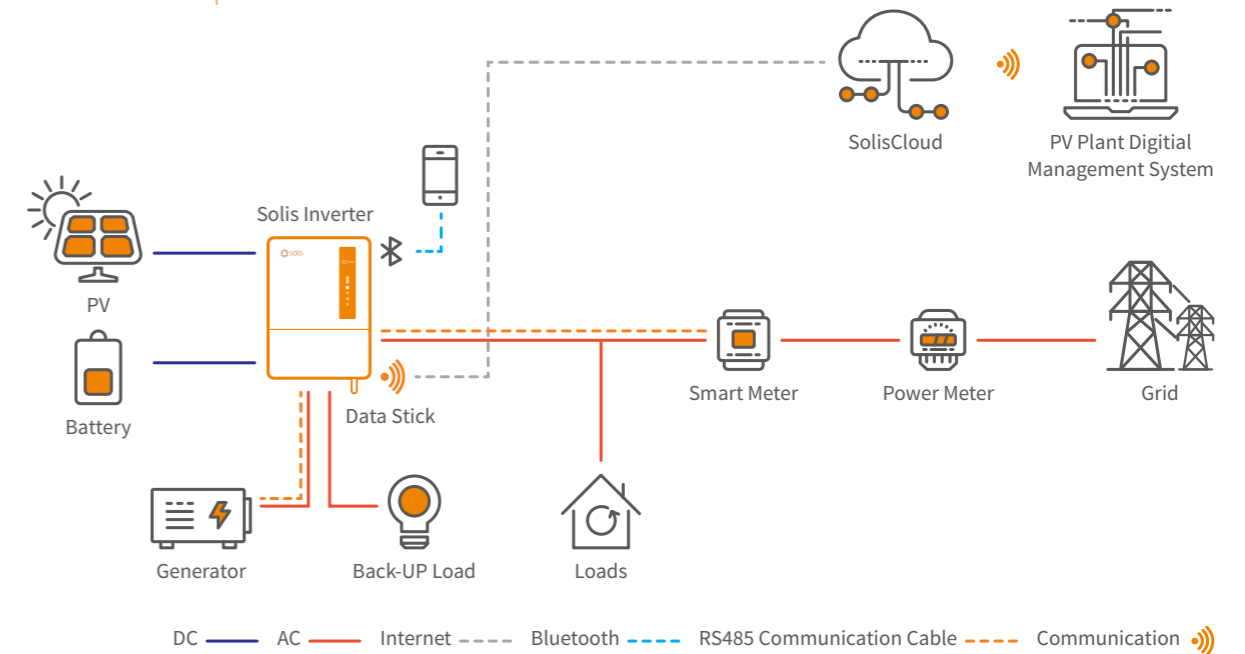
**Residential Energy Storage Solution - S6 series**

Generator on Grid side



**Residential Energy Storage Solution - S6-L-PRO series**

Generator on Gen port side



## S5-EH1P(3-6)K-L

### Solis Energy Storage Inverters

#### Features:

- Max. string input current 15A
- Uninterrupted power supply, 20ms reaction
- 5kW backup power to support more important loads
- Multiple working modes to make maximize self-consumption, increase benefit
- Higher charge-discharge efficiency, improving the economic benefits
- AFCI protection, proactively reduces fire risk
- Fanless design, long lifespan
- Compatible with lithium & lead-acid batteries, increased more choice in different markets
- Intelligent EMS function, improving battery's reliability
- 24-hour fully intelligent energy management, Real-time grasp of PV plant status
- Remotely control & upgrade function, making digital power plant maintenance at your fingertips

#### Models:

S5-EH1P3K-L / S5-EH1P3.6K-L

S5-EH1P4.6K-L / S5-EH1P5K-L

S5-EH1P6K-L



## DATASHEET

## S5-EH1P(3-6)K-L

| Models  | 3K   | 3.6K            | 4.6K          | 5K              | 6K              |
|---|--|-----------------|---------------|-----------------|-----------------|
| <b>Input DC (PV side)</b>                         |  |                 |               |                 |                 |
| Recommended max. PV power                         | 4.8 kW   | 5.7 kW          | 8 kW          | 8 kW            | 8 kW            |
| Max. input voltage                                | 600 V  |                 |               |                 |                 |
| Rated voltage                                     | 330 V  |                 |               |                 |                 |
| Start-up voltage                                  | 120 V  |                 |               |                 |                 |
| MPPT voltage range                                | 90-520 V   |                 |               |                 |                 |
| Max. input current                                | 15 A / 15 A  |                 |               |                 |                 |
| Max. short circuit current                        | 22.5 A / 22.5 A  |                 |               |                 |                 |
| MPPT number/Max. input strings number             | 2/2  |                 |               |                 |                 |
| <b>Battery</b>                                    |  |                 |               |                 |                 |
| Battery type                                      | Li-ion / Lead-acid   |                 |               |                 |                 |
| Battery voltage range                             | 42 - 58 V  |                 |               |                 |                 |
| Battery capacity                                  | 50 - 2000 Ah   |                 |               |                 |                 |
| Max. charge / discharge power                     | 3 kW   |                 | 5 kW          |                 |                 |
| Max. charge / discharge current                   | 62.5 A   |                 | 100 A         |                 |                 |
| Communication                                     | CAN  |                 |               |                 |                 |
| <b>Output AC (Back-up)</b>                        |  |                 |               |                 |                 |
| Rated output power                                | 3 kW   |                 | 5 kW          |                 |                 |
| Max. apparent output power                        | 4.5 kVA, 10 sec  |                 | 7 kVA, 10 sec |                 |                 |
| Back-up switch time                               | <20 ms   |                 |               |                 |                 |
| Rated output voltage                              | 1/N/PE, 220 V / 230 V  |                 |               |                 |                 |
| Rated frequency                                   | 50 Hz  |                 |               |                 |                 |
| Rated output current                              | 14 A / 13.5 A  |                 | 23 A / 22 A   |                 |                 |
| THDv (@linear load)                               | <2%  |                 |               |                 |                 |
| <b>Input AC (Grid side)</b>                       |  |                 |               |                 |                 |
| Input voltage range                               | 187-265 V  |                 |               |                 |                 |
| Max. input current                                | 20.5 A / 20 A  | 25 A / 23.5 A   | 31.5 A / 30 A | 34.5 A / 33 A   | 34.5 A / 33 A   |
| Frequency range                                   | 45-55 Hz / 55-65 Hz  |                 |               |                 |                 |
| <b>Output AC (Grid side)</b>                      |  |                 |               |                 |                 |
| Rated output power                                | 3 kW   | 3.6 kW          | 4.6 kW        | 5 kW            | 6 kW            |
| Max. apparent output power                        | 3.3 kVA  | 4 kVA           | 4.6 kVA       | 5.5 kVA         | 6.6 kVA         |
| Operation phase                                   | 1/N/PE   |                 |               |                 |                 |
| Rated grid voltage                                | 220 V / 230 V  |                 |               |                 |                 |
| Rated grid frequency                              | 50 Hz  |                 |               |                 |                 |
| Rated grid output current                         | 13.7 A / 13.1 A  | 16.4 A / 15.7 A | 20.9 A / 20 A | 22.8 A / 21.7 A | 27.3 A / 26.1 A |
| Max. output current                               | 15 A   | 18.5 A          | 21 A          | 25 A            | 30 A            |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)  |                 |               |                 |                 |
| THDi  | <2%  |                 |               |                 |                 |
| <b>Efficiency</b>                                 |  |                 |               |                 |                 |
| Max. efficiency                                   | >97.1%   |                 |               |                 |                 |
| EU efficiency                                     | >96.5%   |                 |               |                 |                 |
| <b>Protection</b>                                 |  |                 |               |                 |                 |
| DC reverse-polarity protection                    | Yes  |                 |               |                 |                 |
| Short circuit protection                          | Yes  |                 |               |                 |                 |
| Output over current protection                    | Yes  |                 |               |                 |                 |
| Surge protection                                  | DC Type II / AC Type II  |                 |               |                 |                 |
| Ground fault monitoring                           | Yes  |                 |               |                 |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>   |                 |               |                 |                 |
| Protection class/Over voltage category            | I/II   |                 |               |                 |                 |
| <b>General Data</b>                               |  |                 |               |                 |                 |
| Dimensions (W*H*D)                                | 333*505*249 mm   |                 |               |                 |                 |
| Weight  | 18.3 kg  |                 |               |                 |                 |
| Topology  | High frequency isolation (for battery)   |                 |               |                 |                 |
| Operating ambient temperature range               | -25 ~ +60°C  |                 |               |                 |                 |
| Ingress protection                                | IP65   |                 |               |                 |                 |
| Cooling concept                                   | Natural convection   |                 |               |                 |                 |
| Max. operation altitude                           | 3000 m   |                 |               |                 |                 |
| Grid connection standard                          | G98 or G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1, VDE 0126/UTE C 15/VFR:2019, RD 1699/RD 244/UNE 206006/UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |                 |               |                 |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, EN 61000-6-2/-3   |                 |               |                 |                 |
| <b>Features</b>                                   |  |                 |               |                 |                 |
| DC connection                                     | MC4 connector  |                 |               |                 |                 |
| AC connection                                     | Quick connection plug  |                 |               |                 |                 |
| Display   | 7.0"LCD color screen display   |                 |               |                 |                 |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS   |                 |               |                 |                 |

(1) Activation required.

## S6-EH1P(3-6)K-L-EU

### Solis Energy Storage Inverters

#### Highly Flexible

- Integrated 2 MPPTs, suitable for residential rooftop installations with multiple array orientations
- Compatible with multiple brands of battery models giving customers multiple battery options

#### Intelligent Function

- Supports pure off grid applications with generator communication support
- Multiple working modes to meet different use case scenarios
- Controllable and Upgradeable via the SolisCloud App to avoid site visits

#### Safe and Reliable

- Safety protection with integrated AFCI function, which actively detects arc faults in the PV Array
- Natural convection design without external fans

#### Outstanding Performance

- Up to 16A of MPPT current input to support 182mm solar panels
- Supports 1.6 DC:AC ratio to connect more PV capacity to the energy storage system
- Up to 125A/6kW max charge/discharge rating with industry highest level 6kW of backup loads support capability
- UPS level switching time (<10ms) supporting critical loads all the time
- High PV charge efficiency to prevent excess PV loss

#### Models:

- S6-EH1P3K-L-EU / S6-EH1P3.6K-L-EU
- S6-EH1P4.6K-L-EU / S6-EH1P5K-L-EU
- S6-EH1P6K-L-EU



### DATASHEET

### S6-EH1P(3-6)K-L-EU

| Models  | 3K   | 3.6K            | 4.6K            | 5K              | 6K              |
|---|--|-----------------|-----------------|-----------------|-----------------|
| <b>Input DC (PV side)</b>                         |  |                 |                 |                 |                 |
| Recommended max. PV power                         | 4.8 kW   | 5.7 kW          | 7 kW            | 8 kW            | 9.6 kW          |
| Max. input voltage                                | 600 V  |                 |                 |                 |                 |
| Rated voltage                                     | 330 V  |                 |                 |                 |                 |
| Start-up voltage                                  | 90 V   |                 |                 |                 |                 |
| MPPT voltage range                                | 90-520 V   |                 |                 |                 |                 |
| Max. input current                                | 16 A / 16 A  |                 |                 |                 |                 |
| Max. short circuit current                        | 24 A / 24 A  |                 |                 |                 |                 |
| MPPT number/Max. input strings number             | 2/2  |                 |                 |                 |                 |
| <b>Battery</b>                                    |  |                 |                 |                 |                 |
| Battery type                                      | Li-ion / Lead-acid   |                 |                 |                 |                 |
| Battery voltage range                             | 42 - 58 V  |                 |                 |                 |                 |
| Battery capacity                                  | 50 - 2000 Ah   |                 |                 |                 |                 |
| Max. charge / discharge power                     | 3 kW   | 3.6 kW          | 4.6 kW          | 5 kW            | 6 kW            |
| Max. charge / discharge current                   | 62.5 A   | 75 A            | 100 A           | 105 A           | 125 A           |
| Communication                                     | CAN  |                 |                 |                 |                 |
| <b>Output AC (Grid side)</b>                      |  |                 |                 |                 |                 |
| Rated output power                                | 3 kW   | 3.6 kW          | 4.6 kW          | 5 kW            | 6 kW            |
| Max. apparent output power                        | 3.3 kVA  | 4 kVA           | 4.6 kVA         | 5.5 kVA         | 6.6 kVA         |
| Operation phase                                   | 1/N/PE   |                 |                 |                 |                 |
| Rated grid voltage                                | 220 V / 230 V  |                 |                 |                 |                 |
| Rated grid frequency                              | 50 Hz  |                 |                 |                 |                 |
| Rated grid output current                         | 13.6 A / 13 A  | 16.4 A / 15.7 A | 20.9 A / 20 A   | 22.7 A / 21.7 A | 27.3 A / 26.1 A |
| Max. output current                               | 15 A   | 18.2 A          | 21 A            | 25 A            | 30 A            |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)  |                 |                 |                 |                 |
| THDi  | <2%  |                 |                 |                 |                 |
| <b>Input AC (Grid side)</b>                       |  |                 |                 |                 |                 |
| Input voltage range                               | 187-253 V  |                 |                 |                 |                 |
| Max. input current                                | 20.5 A   | 24.6 A          | 31.4 A          | 34.1 A          | 40 A            |
| Frequency range                                   | 45-55 Hz / 55-65 Hz  |                 |                 |                 |                 |
| <b>Output AC (Back-up)</b>                        |  |                 |                 |                 |                 |
| Rated output power                                | 3 kW   | 3.6 kW          | 4.6 kW          | 5 kW            | 6 kW            |
| Max. apparent output power                        | 4.2 kVA, 60 sec  | 5 kVA, 60 sec   | 6.4 kVA, 60 sec | 7 kVA, 60 sec   | 8 kVA, 60 sec   |
| Back-up switch time                               | <10 ms   |                 |                 |                 |                 |
| Rated output voltage                              | 1/N/PE, 220 V / 230 V  |                 |                 |                 |                 |
| Rated frequency                                   | 50 Hz  |                 |                 |                 |                 |
| Max. output current                               | 21.8 A   | 26.2 A          | 33.4 A          | 36.5 A          | 40 A            |
| THDv (@linear load)                               | <2%  |                 |                 |                 |                 |
| <b>Efficiency</b>                                 |  |                 |                 |                 |                 |
| Max. efficiency                                   | > 97.0%  |                 | > 97.5%         |                 |                 |
| EU efficiency                                     |  |                 | > 96.2%         |                 |                 |
| BAT charged by PV Max. efficiency                 | > 94.9%  |                 |                 |                 |                 |
| BAT charged/discharged to AC Max. efficiency      | > 94.33%/93.51%  |                 |                 |                 |                 |
| <b>Protection</b>                                 |  |                 |                 |                 |                 |
| DC reverse-polarity protection                    | Yes  |                 |                 |                 |                 |
| Ground fault monitoring                           | Yes  |                 |                 |                 |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>   |                 |                 |                 |                 |
| Protection class/Over voltage category            | I/II   |                 |                 |                 |                 |
| <b>General Data</b>                               |  |                 |                 |                 |                 |
| Dimensions (W*H*D)                                | 405*480*205 mm   |                 |                 |                 |                 |
| Weight  | 24.2 kg  |                 |                 |                 |                 |
| Topology  | High frequency isolation (for battery)   |                 |                 |                 |                 |
| Operating ambient temperature range               | -25 ~ +60°C  |                 |                 |                 |                 |
| Ingress protection                                | IP66   |                 |                 |                 |                 |
| Cooling concept                                   | Natural convection   |                 |                 |                 |                 |
| Max. operation altitude                           | 4000 m   |                 |                 |                 |                 |
| Grid connection standard                          | G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, RD 1699 / RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |                 |                 |                 |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, EN 61000-6-1/-2/-3/-4   |                 |                 |                 |                 |
| <b>Features</b>                                   |  |                 |                 |                 |                 |
| DC connection                                     | MC4 connector  |                 |                 |                 |                 |
| AC connection                                     | Quick connection plug  |                 |                 |                 |                 |
| Display   | LED + APP  |                 |                 |                 |                 |
| Communication                                     | RS485, CAN, Optional: Wi-Fi, GPRS, LAN   |                 |                 |                 |                 |

(1) Activation required.

## S6-EH1P(3-6)K-L-PRO

### Solis S6 Advanced Power Hybrid Inverter

**New** PRO model provides solutions for demanding power scenarios

#### Features:

- Generator connectivity with multiple input methods and automatic generator On/Off control
- Automatic UPS switching
- 10 second 200% surge power backup overload capability
- Supports 1ph and 3ph flexible connection with max 36kW in parallel
- Up to 135A max charge/discharge current
- 6 customisable charge/discharge time settings
- Compatible with lead-acid and lithium batteries, with multiple battery protection features
- Supports peak shaving control in both "self-use" and "generator" mode

#### Models:

S6-EH1P3K-L-PRO / S6-EH1P3.6K-L-PRO

S6-EH1P5K-L-PRO / S6-EH1P6K-L-PRO



## DATASHEET

## S6-EH1P(3-6)K-L-PRO

| Models  | 3K  | 3.6K            | 5K              | 6K              |
|---|---|-----------------|-----------------|-----------------|
| <b>Input DC (PV side)</b>                         |   |                 |                 |                 |
| Recommended max. PV power                         | 4.8 kW  | 5.76 kW         | 8 kW            | 9.6 kW          |
| Max. input voltage                                | 600 V   |                 |                 |                 |
| Rated voltage                                     | 330 V   |                 |                 |                 |
| Start-up voltage                                  | 90 V  |                 |                 |                 |
| MPPT voltage range                                | 90-520 V  |                 |                 |                 |
| Max. input current                                | 16 A / 16 A   |                 |                 |                 |
| Max. short circuit current                        | 24 A / 24 A   |                 |                 |                 |
| MPPT number/Max. input strings number             | 2/2   |                 |                 |                 |
| <b>Battery</b>                                    |   |                 |                 |                 |
| Battery type                                      | Li-ion / Lead-acid  |                 |                 |                 |
| Battery voltage range                             | 40-60 V   |                 |                 |                 |
| Max. charge / discharge power                     | 3 kW  | 3.6 kW          | 5 kW            | 6 kW            |
| Max. charge / discharge current                   | 70 A  | 80 A            | 112 A           | 135 A           |
| Communication                                     | CAN/RS485   |                 |                 |                 |
| <b>Output AC (Grid side)</b>                      |   |                 |                 |                 |
| Rated output power                                | 3 kW  | 3.6 kW          | 5 kW            | 6 kW            |
| Max. apparent output power                        | 3.3 kVA   | 4 kVA           | 5.5 kVA         | 6.6 kVA         |
| Operation phase                                   | 1/N/PE  |                 |                 |                 |
| Rated grid voltage                                | 220 V / 230 V   |                 |                 |                 |
| Rated grid frequency                              | 50 Hz / 60 Hz   |                 |                 |                 |
| Rated grid output current                         | 13.6 A / 13.0 A   | 16.4 A / 15.7 A | 22.7 A / 21.7 A | 27.3 A / 26.1 A |
| Max. output current                               | 15 A  | 20 A            | 25 A            | 30 A            |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)   |                 |                 |                 |
| THDi  | <2%   |                 |                 |                 |
| <b>Input AC (Grid side)</b>                       |   |                 |                 |                 |
| Input voltage range                               | 187-253 V   |                 |                 |                 |
| Max. input current                                | 20 A  | 25 A            | 32 A            | 40 A            |
| Frequency range                                   | 45-55 Hz / 55-65 Hz   |                 |                 |                 |
| <b>Output AC (Back-up)</b>                        |   |                 |                 |                 |
| Rated output power                                | 3 kW  | 3.6 kW          | 5 kW            | 6 kW            |
| Max. apparent output power                        | 2 times of rated power, 10 s  |                 |                 |                 |
| Back-up switch time                               | <4 ms   |                 |                 |                 |
| Rated output voltage                              | 1/N/PE, 220 V / 230 V   |                 |                 |                 |
| Rated frequency                                   | 50 Hz / 60 Hz   |                 |                 |                 |
| Max. output current                               | 13.6 A  | 16.4 A          | 22.7 A          | 27.3 A          |
| THDv (@linear load)                               | <2%   |                 |                 |                 |
| <b>Efficiency</b>                                 |   |                 |                 |                 |
| Max. efficiency                                   | > 97.5%   |                 |                 |                 |
| EU efficiency                                     | > 96.2%   |                 |                 |                 |
| <b>Protection</b>                                 |   |                 |                 |                 |
| DC reverse-polarity protection                    | Yes   |                 |                 |                 |
| Ground fault monitoring                           | Yes   |                 |                 |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>  |                 |                 |                 |
| Protection class/Over voltage category            | I/II  |                 |                 |                 |
| <b>General Data</b>                               |   |                 |                 |                 |
| Dimensions (W*H*D)                                | 406*560*205 mm  |                 |                 |                 |
| Weight  | 24 kg   |                 |                 |                 |
| Topology  | High frequency isolation (for battery)                                      |                 |                 |                 |
| Operating ambient temperature range               | -40 ~ +60°C   |                 |                 |                 |
| Ingress protection                                | IP66  |                 |                 |                 |
| Cooling concept                                   | Natural convection  |                 |                 |                 |
| Max. operation altitude                           | 4000 m  |                 |                 |                 |
| Grid connection standard                          | NRS 097-2-1, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |                 |                 |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, EN 61000-6-2/-3  |                 |                 |                 |
| <b>Features</b>                                   |   |                 |                 |                 |
| DC connection                                     | MC4 plug (PV port) / Terminal Block (BAT port)                              |                 |                 |                 |
| AC connection                                     | Terminal Block  |                 |                 |                 |
| Display   | LED + APP   |                 |                 |                 |
| Communication                                     | RS485, CAN, Optional: Wi-Fi, GPRS, LAN                                      |                 |                 |                 |

(1) Activation required.

## S6-EH1P8K-L-PRO

### Solis S6 Advanced Power Hybrid Inverter

**New** PRO model provides solutions for demanding power scenarios

#### Features:

- Generator connectivity with multiple input methods and automatic generator On/Off control
- Automatic UPS switching
- 10 second 200% surge power backup overload capability
- Supports 1ph and 3ph flexible connection with max 48kW in parallel
- Up to 190A max charge/discharge current
- 6 customisable charge/discharge time settings
- Compatible with lead-acid and lithium batteries, with multiple battery protection features
- Supports peak shaving control in both "self-use" and "generator" mode

#### Models:

S6-EH1P8K-L-PRO



## DATASHEET

## S6-EH1P8K-L-PRO

| Models  | 8K  |
|---|---|
| <b>Input DC (PV side)</b>                         |   |
| Recommended max. PV power                         | 12.8 kW   |
| Max. input voltage                                | 600 V   |
| Rated voltage                                     | 330 V   |
| Start-up voltage                                  | 90 V  |
| MPPT voltage range                                | 90-520 V  |
| Max. input current                                | 32 A / 20 A   |
| Max. short circuit current                        | 36 A / 30 A   |
| MPPT number/Max. input strings number             | 2/3   |
| <b>Battery</b>                                    |   |
| Battery type                                      | Li-ion / Lead-acid  |
| Battery voltage range                             | 40-60 V   |
| Max. charge / discharge power                     | 8 kW  |
| Max. charge / discharge current                   | 190 A   |
| Communication                                     | CAN/RS485   |
| <b>Output AC (Grid side)</b>                      |   |
| Rated output power                                | 8 kW  |
| Max. apparent output power                        | 8.8 kVA   |
| Operation phase                                   | 1/N/PE  |
| Rated grid voltage                                | 220 V / 230 V   |
| Rated grid frequency                              | 50 Hz / 60 Hz   |
| Rated grid output current                         | 36.4 A / 34.8 A   |
| Max. output current                               | 40 A  |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)   |
| THDi  | <2%   |
| <b>Input AC (Grid side)</b>                       |   |
| Input voltage range                               | 187-253 V   |
| Max. input current                                | 50 A  |
| Frequency range                                   | 45-55 Hz / 55-65 Hz   |
| <b>Output AC (Back-up)</b>                        |   |
| Rated output power                                | 8 kW  |
| Max. apparent output power                        | 2 times of rated power, 10 s  |
| Back-up switch time                               | <4 ms   |
| Rated output voltage                              | 1/N/PE, 220 V / 230 V   |
| Rated frequency                                   | 50 Hz / 60 Hz   |
| Max. output current                               | 36.4 A  |
| THDv (@linear load)                               | <2%   |
| <b>Efficiency</b>                                 |   |
| Max. efficiency                                   | > 97.5%   |
| EU efficiency                                     | > 96.2%   |
| <b>Protection</b>                                 |   |
| DC reverse-polarity protection                    | Yes   |
| Ground fault monitoring                           | Yes   |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>  |
| Protection class/Over voltage category            | I/II  |
| <b>General Data</b>                               |   |
| Dimensions (W*H*D)                                | 406*560*215 mm  |
| Weight  | 27 kg   |
| Topology  | High frequency isolation (for battery)                                      |
| Operating ambient temperature range               | -40 ~ +60°C   |
| Ingress protection                                | IP66  |
| Cooling concept                                   | Intelligent redundant fan-cooling   |
| Max. operation altitude                           | 4000 m  |
| Grid connection standard                          | NRS 097-2-1, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, EN 61000-6-2/-3  |
| <b>Features</b>                                   |   |
| DC connection                                     | MC4 plug (PV port) / Terminal Block (BAT port)                              |
| AC connection                                     | Terminal Block  |
| Display   | LED + APP   |
| Communication                                     | RS485, CAN, Optional: Wi-Fi, GPRS, LAN                                      |

(1) Activation required.

## RHI-3P(5-10)K-HVES-5G

### Solis Energy Storage Inverters

#### Features:

- Max. efficiency 98.4%
- 2 MPPT and 4 DC input; Max 26A DC input current
- 3 operating modes (self-consumption; time-of-use; off-grid back-up) & programmable energy management
- Power supply can be switched automatically and switching time within 40ms
- Ensures AC backup for up to 10kW of continuous power and 16kVA of peak power
- Time of use shifting and peak shaving capabilities to grid
- AFCI protection, proactively reduces fire risk
- Intelligent EMS function
- Support three-phase imbalance on backup output port
- 24-hour fully intelligent energy management, Real-time grasp of PV plant status
- Remotely control & upgrade function, making digital power plant maintenance at your fingertips

#### Models:

RHI-3P5K-HVES-5G / RHI-3P6K-HVES-5G

RHI-3P8K-HVES-5G / RHI-3P10K-HVES-5G



360° View

## DATASHEET

### RHI-3P(5-10)K-HVES-5G

| Models  | 5K   | 6K             | 8K              | 10K             |
|---|--|----------------|-----------------|-----------------|
| <b>Input DC (PV side)</b>                         |  |                |                 |                 |
| Recommended max. PV power                         | 8 kW   | 9.6 kW         | 12.8 kW         | 16 kW           |
| Max. input voltage                                | 1000 V   |                |                 |                 |
| Rated voltage                                     | 600 V  |                |                 |                 |
| Start-up voltage                                  | 160 V  |                |                 |                 |
| MPPT voltage range                                | 200-850 V  |                |                 |                 |
| Max. input current                                | 13 A / 13 A  |                | 26 A / 13 A     |                 |
| Max. short circuit current                        | 16.5 A / 16.5 A  |                | 32.5 A / 16.5 A |                 |
| MPPT number/Max. input strings number             | 2/2  |                | 2/3             |                 |
| <b>Battery</b>                                    |  |                |                 |                 |
| Battery type                                      | Li-ion   |                |                 |                 |
| Battery voltage range                             | 160-600 V  |                |                 |                 |
| Max. charge / discharge power                     | 5 kW   | 6 kW           | 8 kW            | 10 kW           |
| Max. charge / discharge current                   | 25 A   |                |                 |                 |
| Communication                                     | CAN  |                |                 |                 |
| <b>Output AC (Grid side)</b>                      |  |                |                 |                 |
| Rated output power                                | 5 kW   | 6 kW           | 8 kW            | 10 kW           |
| Max. apparent output power                        | 5.5 kVA  | 6.6 kVA        | 8.8 kVA         | 10 kVA          |
| Operation phase                                   | 3/N/PE   |                |                 |                 |
| Rated grid voltage                                | 380 V / 400 V  |                |                 |                 |
| Rated grid frequency                              | 50 Hz  |                |                 |                 |
| Rated grid output current                         | 7.6 A / 7.3 A  | 9.2 A / 8.7 A  | 12.2 A / 11.6 A | 15.2 A / 14.5 A |
| Max. output current                               | 8.4 A  | 10 A           | 13.4 A          | 16.7 A          |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)  |                |                 |                 |
| THDi  | <2%  |                |                 |                 |
| <b>Output AC (Back-up)</b>                        |  |                |                 |                 |
| Rated output power                                | 5 kW   | 6 kW           | 8 kW            | 10 kW           |
| Peak apparent output power                        | 10 kVA, 60 sec   | 12 kVA, 60 sec | 16 kVA, 60 sec  | 16 kVA, 60 sec  |
| Back-up switch time                               | < 40 ms  |                |                 |                 |
| Rated output voltage                              | 3/N/PE, 380 V / 400 V  |                |                 |                 |
| Rated frequency                                   | 50 Hz  |                |                 |                 |
| Rated output current                              | 7.6 A / 7.3 A  | 9.2 A / 8.7 A  | 12.2 A / 11.6 A | 15.2 A / 14.5 A |
| THDv (@linear load)                               | <2%  |                |                 |                 |
| <b>Efficiency</b>                                 |  |                |                 |                 |
| Max. efficiency                                   | 98.4%  |                |                 |                 |
| EU efficiency                                     | 97.7%  |                |                 |                 |
| MPPT efficiency                                   | 99.9%  |                |                 |                 |
| Battery charge/discharge efficiency               | 97.5%  |                |                 |                 |
| <b>Protection</b>                                 |  |                |                 |                 |
| Anti-islanding protection                         | Yes  |                |                 |                 |
| Output over current protection                    | Yes  |                |                 |                 |
| Short circuit protection                          | Yes  |                |                 |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>   |                |                 |                 |
| Integrated DC switch                              | Optional   |                |                 |                 |
| DC reverse-polarity protection                    | Yes  |                |                 |                 |
| PV over voltage protection                        | Yes  |                |                 |                 |
| Battery reverse protection                        | Yes  |                |                 |                 |
| <b>General Data</b>                               |  |                |                 |                 |
| Dimensions (W*H*D)                                | 535*455*185 mm   |                |                 |                 |
| Weight  | 25.1 kg  |                |                 |                 |
| Topology  | Transformerless  |                |                 |                 |
| Standby consumption                               | <15 W  |                |                 |                 |
| Operating ambient temperature range               | -25 ~ +60°C  |                |                 |                 |
| Relative humidity                                 | 0-100%   |                |                 |                 |
| Ingress protection                                | IP65   |                |                 |                 |
| Cooling concept                                   | Natural convection   |                |                 |                 |
| Max. operation altitude                           | 4000 m   |                |                 |                 |
| Grid connection standard                          | G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15/VFR:2019, RD 1699/RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |                |                 |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-3   |                |                 |                 |
| <b>Features</b>                                   |  |                |                 |                 |
| DC connection                                     | MC4 connector  |                |                 |                 |
| AC connection                                     | Quick connection plug  |                |                 |                 |
| Display   | LCD  |                |                 |                 |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS   |                |                 |                 |

(1) Activation required.

## S6-EH3P(5-10)K2-H

### Solis Energy Storage Inverters

#### Features:

- Industry leading 50A/10kW max charge/discharge rating
- Automatic UPS switching
- Supports Peak Shaving Mode
- Pre-made Battery, Meter and CAN cabling to reduce installation time
- Supports Unbalanced and Half-Wave Loads on both the Grid and Backup Port
- Compatible with multiple brands of lithium battery models
- Increased battery protection and operation features to extend battery life

#### Models:

S6-EH3P5K2-H / S6-EH3P6K2-H

S6-EH3P8K2-H / S6-EH3P10K2-H



• Monitoring Portal – [www.soliscloud.com](http://www.soliscloud.com) or SolisCloud App • Compatible Batteries – Check online at [www.solisinverters.com](http://www.solisinverters.com)

## DATASHEET

### S6-EH3P(5-10)K2-H

| Models  | 5K2   | 6K2             | 8K2              | 10K2            |
|---|---|-----------------|------------------|-----------------|
| <b>Input DC (PV side)</b>                         |   |                 |                  |                 |
| Recommended max. PV power                         | 8 kW  | 9.6 kW          | 12.8 kW          | 16 kW           |
| Max. input voltage                                | 1000 V  |                 |                  |                 |
| Rated voltage                                     | 600 V   |                 |                  |                 |
| Start-up voltage                                  | 160 V   |                 |                  |                 |
| MPPT voltage range                                | 200-850 V   |                 |                  |                 |
| Max. input current                                | 16 A / 16 A   |                 |                  |                 |
| Max. short circuit current                        | 24 A / 24 A   |                 |                  |                 |
| MPPT number/Max. input strings number             | 2/2   |                 |                  |                 |
| <b>Battery</b>                                    |   |                 |                  |                 |
| Battery type                                      | Li-ion  |                 |                  |                 |
| Battery voltage range                             | 120-600 V   |                 |                  |                 |
| Max. charge / discharge power                     | 5 kW  | 6 kW            | 8 kW             | 10 kW           |
| Max. charge / discharge current                   | 25 A  |                 | 50 A             |                 |
| Communication                                     | CAN/RS485   |                 |                  |                 |
| <b>Output AC (Grid side)</b>                      |   |                 |                  |                 |
| Rated output power                                | 5 kW  | 6 kW            | 8 kW             | 10 kW           |
| Max. apparent output power                        | 5 kW  | 6 kW            | 8 kW             | 10 kW           |
| Rated grid voltage                                | 3/N/PE, 380 V / 400 V   |                 |                  |                 |
| Rated grid frequency                              | 50 Hz   |                 |                  |                 |
| Rated grid output current                         | 7.6 A / 7.2 A   | 9.1 A / 8.7 A   | 12.2 A / 11.5 A  | 15.2 A / 14.4 A |
| Max. output current                               | 7.6 A / 7.2 A   | 9.1 A / 8.7 A   | 12.2 A / 11.5 A  | 15.2 A / 14.4 A |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)   |                 |                  |                 |
| THDi  | <3%   |                 |                  |                 |
| <b>Input AC (Grid side)</b>                       |   |                 |                  |                 |
| Max. input power                                  | 7.5 kW  | 9 kW            | 12 kW            | 15 kW           |
| Rated input current                               | 11.4 A  | 13.8 A          | 18.2 A           | 22.8 A          |
| Rated input voltage                               | 3/N/PE, 380 V / 400 V   |                 |                  |                 |
| Rated input frequency                             | 50 Hz   |                 |                  |                 |
| <b>Output AC (Back-up)</b>                        |   |                 |                  |                 |
| Rated output power                                | 5 kW  | 6 kW            | 8 kW             | 10 kW           |
| Max. apparent output power                        | 8 kVA, 60 sec   | 9.6 kVA, 60 sec | 12.8 kVA, 60 sec | 16 kVA, 60 sec  |
| Back-up switch time                               | <10 ms  |                 |                  |                 |
| Rated output voltage                              | 3/N/PE, 380 V / 400 V   |                 |                  |                 |
| Rated frequency                                   | 50 Hz   |                 |                  |                 |
| Rated output current                              | 7.6 A / 7.2 A   | 9.1 A / 8.7 A   | 12.2 A / 11.5 A  | 15.2 A / 14.4 A |
| THDv (@linear load)                               | <2%   |                 |                  |                 |
| <b>Efficiency</b>                                 |   |                 |                  |                 |
| Max. efficiency                                   | 97.9%   | 97.9%           | 98.0%            | 98.0%           |
| EU efficiency                                     | 96.8%   | 97.1%           | 97.4%            | 97.5%           |
| BAT charged by PV Max. efficiency                 | 98.4%   | 98.5%           | 98.2%            | 98.3%           |
| BAT charged/discharged to AC Max. efficiency      | 97.3%   | 97.3%           | 97.5%            | 97.5%           |
| <b>Protection</b>                                 |   |                 |                  |                 |
| Anti-islanding protection                         | Yes   |                 |                  |                 |
| Output over current protection                    | Yes   |                 |                  |                 |
| Short circuit protection                          | Yes   |                 |                  |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>  |                 |                  |                 |
| Integrated DC switch                              | Yes   |                 |                  |                 |
| DC reverse-polarity protection                    | Yes   |                 |                  |                 |
| PV over voltage protection                        | Yes   |                 |                  |                 |
| Battery reverse protection                        | Yes   |                 |                  |                 |
| <b>General Data</b>                               |   |                 |                  |                 |
| Dimensions (W*H*D)                                | 600*500*230 mm  |                 |                  |                 |
| Weight  | 32.6 kg   |                 |                  |                 |
| Topology  | Transformerless   |                 |                  |                 |
| Self-consumption (night)                          | <25 W   |                 |                  |                 |
| Operating ambient temperature range               | -25 ~ +60°C   |                 |                  |                 |
| Ingress protection                                | IP66  |                 |                  |                 |
| Cooling concept                                   | Natural convection  |                 |                  |                 |
| Max. operation altitude                           | 4000 m  |                 |                  |                 |
| Grid connection standard                          | G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15/VFR:2019, RD 1699/RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |                 |                  |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-3  |                 |                  |                 |
| <b>Features</b>                                   |   |                 |                  |                 |
| PV connection                                     | MC4 connector   |                 |                  |                 |
| Battery connection                                | Quick connection plug   |                 |                  |                 |
| AC connection                                     | Quick connection plug   |                 |                  |                 |
| Display   | LED + Bluetooth + APP   |                 |                  |                 |
| Communication                                     | CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN  |                 |                  |                 |

(1) Activation required.

## S6-EH3P(5-10)K-H-EU

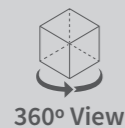
### Solis Energy Storage Inverters

#### Features:

- Integrated 3 or 4 MPPTs for multiple array orientations
- Industry leading 50A/10kW max charge/discharge rating
- Automatic UPS switching
- Supports Peak Shaving Mode
- Pre-made Battery, Meter and CAN cabling to reduce installation time
- Supports Unbalanced and Half-Wave Loads on both the Grid and Backup Port
- Compatible with multiple brands of lithium battery models
- Increased battery protection and operation features to extend battery life

#### Models:

S6-EH3P5K-H-EU / S6-EH3P6K-H-EU  
 S6-EH3P8K-H-EU / S6-EH3P10K-H-EU



• Monitoring Portal – [www.soliscloud.com](http://www.soliscloud.com) or SolisCloud App • Compatible Batteries – Check online at [www.solisinverters.com](http://www.solisinverters.com)

### DATASHEET

### S6-EH3P(5-10)K-H-EU

| Models  | 5K  | 6K              | 8K                        | 10K             |
|---|---|-----------------|---------------------------|-----------------|
| <b>Input DC (PV side)</b>                         |   |                 |                           |                 |
| Recommended max. PV power                         | 8 kW  | 9.6 kW          | 12.8 kW                   | 16 kW           |
| Max. input voltage                                | 1000 V  |                 |                           |                 |
| Rated voltage                                     | 600 V   |                 |                           |                 |
| Start-up voltage                                  | 160 V   |                 |                           |                 |
| MPPT voltage range                                | 200-850 V   |                 |                           |                 |
| Max. input current                                | 16 A / 16 A / 16 A  |                 | 16 A / 16 A / 16 A / 16 A |                 |
| Max. short circuit current                        | 24 A / 24 A / 24 A  |                 | 24 A / 24 A / 24 A / 24 A |                 |
| MPPT number/Max. input strings number             | 3/3   |                 | 4/4                       |                 |
| <b>Battery</b>                                    |   |                 |                           |                 |
| Battery type                                      | Li-ion  |                 |                           |                 |
| Battery voltage range                             | 120-600 V   |                 |                           |                 |
| Max. charge / discharge power                     | 5 kW  | 6 kW            | 8 kW                      | 10 kW           |
| Max. charge / discharge current                   | 25 A  |                 | 50 A                      |                 |
| Communication                                     | CAN/RS485   |                 |                           |                 |
| <b>Output AC (Grid side)</b>                      |   |                 |                           |                 |
| Rated output power                                | 5 kW  | 6 kW            | 8 kW                      | 10 kW           |
| Max. apparent output power                        | 5.5 kVA   | 6.6 kVA         | 8.8 kVA                   | 11 kVA          |
| Rated grid voltage                                | 3/N/PE, 380 V / 400 V   |                 |                           |                 |
| Rated grid frequency                              | 50 Hz   |                 |                           |                 |
| Rated grid output current                         | 7.6 A / 7.2 A   | 9.1 A / 8.7 A   | 12.2 A / 11.5 A           | 15.2 A / 14.4 A |
| Max. output current                               | 8.4 A / 7.9 A   | 10 A / 9.6 A    | 13.4 A / 12.7 A           | 16.7 A / 15.8 A |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)   |                 |                           |                 |
| THDi  | <3%   |                 |                           |                 |
| <b>Input AC (Grid side)</b>                       |   |                 |                           |                 |
| Max. input power                                  | 7.5 kW  | 9 kW            | 12 kW                     | 15 kW           |
| Rated input current                               | 11.4 A  | 13.8 A          | 18.2 A                    | 22.8 A          |
| Rated input voltage                               | 3/N/PE, 380 V / 400 V   |                 |                           |                 |
| Rated input frequency                             | 50 Hz   |                 |                           |                 |
| <b>Output AC (Back-up)</b>                        |   |                 |                           |                 |
| Rated output power                                | 5 kW  | 6 kW            | 8 kW                      | 10 kW           |
| Max. apparent output power                        | 8 kVA, 60 sec   | 9.6 kVA, 60 sec | 12.8 kVA, 60 sec          | 16 kVA, 60 sec  |
| Back-up switch time                               | <10 ms  |                 |                           |                 |
| Rated output voltage                              | 3/N/PE, 380 V / 400 V   |                 |                           |                 |
| Rated frequency                                   | 50 Hz   |                 |                           |                 |
| Rated output current                              | 7.6 A / 7.2 A   | 9.1 A / 8.7 A   | 12.2 A / 11.5 A           | 15.2 A / 14.4 A |
| THDv (@linear load)                               | <2%   |                 |                           |                 |
| <b>Efficiency</b>                                 |   |                 |                           |                 |
| Max. efficiency                                   | 97.9%   | 97.9%           | 98.0%                     | 98.0%           |
| EU efficiency                                     | 96.8%   | 97.1%           | 97.4%                     | 97.5%           |
| BAT charged by PV Max. efficiency                 | 98.4%   | 98.5%           | 98.2%                     | 98.3%           |
| BAT charged/discharged to AC Max. efficiency      | 97.3%   | 97.3%           | 97.5%                     | 97.5%           |
| <b>Protection</b>                                 |   |                 |                           |                 |
| Anti-islanding protection                         | Yes   |                 |                           |                 |
| Output over current protection                    | Yes   |                 |                           |                 |
| Short circuit protection                          | Yes   |                 |                           |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>  |                 |                           |                 |
| Integrated DC switch                              | Yes   |                 |                           |                 |
| DC reverse-polarity protection                    | Yes   |                 |                           |                 |
| PV over voltage protection                        | Yes   |                 |                           |                 |
| Battery reverse protection                        | Yes   |                 |                           |                 |
| <b>General Data</b>                               |   |                 |                           |                 |
| Dimensions (W*H*D)                                | 600*500*230 mm  |                 |                           |                 |
| Weight  | 32.6 kg   |                 |                           |                 |
| Topology  | Transformerless   |                 |                           |                 |
| Self-consumption (night)                          | <25 W   |                 |                           |                 |
| Operating ambient temperature range               | -25 ~ +60°C   |                 |                           |                 |
| Ingress protection                                | IP66  |                 |                           |                 |
| Cooling concept                                   | Natural convection  |                 |                           |                 |
| Max. operation altitude                           | 4000 m  |                 |                           |                 |
| Grid connection standard                          | G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15/VFR:2019, RD 1699/RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |                 |                           |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-3  |                 |                           |                 |
| <b>Features</b>                                   |   |                 |                           |                 |
| PV connection                                     | MC4 connector   |                 |                           |                 |
| Battery connection                                | Quick connection plug   |                 |                           |                 |
| AC connection                                     | Quick connection plug   |                 |                           |                 |
| Display   | LED + Bluetooth + APP   |                 |                           |                 |
| Communication                                     | CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN  |                 |                           |                 |

(1) Activation required.

**RAI-3K-48ES-5G****Solis Energy Storage Inverters****Features:**

- Uninterrupted power supply, 20ms reaction
- Compatible with both lead-acid battery and li-ion battery
- Compatible with any existing grid-tied PV system, option to upgrade
- Off-grid backup function
- EPS function
- Intelligent EMS function
- Intelligent debugging APP which support one-click inverter configuration
- Various work mode for different application scenario
- Natural cooling without external fan

**Models:**

RAI-3K-48ES-5G

**DATASHEET****RAI-3K-48ES-5G**

| Models                                    | 3K   |
|---|--|
| <b>Output AC (Grid side)</b>              |  |
| Rated output power                        | 3 kW   |
| Max. output power                         | 3 kW   |
| Max. apparent output power                | 3.3 kVA  |
| Operation phase                           | 1/N/PE   |
| Rated grid voltage                        | 220 V / 230 V  |
| Grid voltage range                        | 184-264 V  |
| Rated grid frequency                      | 50 Hz  |
| Rated grid output current                 | 13.6 A / 13 A  |
| Max. output current                       | 20 A   |
| Power factor                              | >0.99 (0.8 leading - 0.8 lagging)  |
| THDi                                      | <3%  |
| <b>Battery</b>                            |  |
| Battery type                              | Li-ion / Lead-acid   |
| Battery voltage range                     | 40-60 V  |
| Battery capacity                          | 50-2000 Ah   |
| Max. charge / discharge current           | 60 A   |
| Communication                             | CAN  |
| <b>Output AC (Back-up)</b>                |  |
| Rated output power                        | 3kW (Requires battery voltage higher than 55 V)  |
| Max. apparent output power                | 4.5 kVA  |
| Back-up switch time                       | <20 ms   |
| Rated output voltage                      | 1/N/PE, 220 V / 230 V  |
| Rated frequency                           | 50 Hz  |
| Rated output current                      | 13.6 A / 13 A  |
| THDv (@linear load)                       | <3%  |
| <b>Input AC (Grid side)</b>               |  |
| Input voltage range                       | 184-264 V  |
| Max. input current                        | 23 A   |
| Frequency range                           | 45-55 Hz / 55-65 Hz  |
| <b>Efficiency</b>                         |  |
| Max. battery charge efficiency            | 94.0%  |
| Max. battery discharge efficiency         | 94.5%  |
| <b>Protection</b>                         |  |
| Battery reverse protection                | Yes  |
| Battery over and under voltage protection | Yes  |
| Short circuit protection                  | Yes  |
| Output over current protection            | Yes  |
| Temperature protection                    | Yes  |
| <b>General Data</b>                       |  |
| Dimensions (W*H*D)                        | 405*510*150 mm   |
| Weight                                    | 12.1 kg  |
| Topology                                  | High frequency isolation   |
| Operating ambient temperature range       | -25 ~ +60°C  |
| Ingress protection                        | IP65   |
| Cooling concept                           | Natural convection   |
| Max. operation altitude                   | 2000 m   |
| Grid connection standard                  | G98 or G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1, VDE 0126/UTE C 15/VFR:2019, RD 1699/RD 244/UNE 206006/UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, MEA, PEA |
| Safety/EMC standard                       | IEC 62477, EN 61000-6-2/-3   |
| <b>Features</b>                           |  |
| DC connection                             | Screw terminal   |
| AC connection                             | Screw clamp terminal (max. 6 mm <sup>2</sup> )   |
| Display                                   | LCD  |
| Communication                             | RS485, CAN, Optional: Wi-Fi, GPRS  |

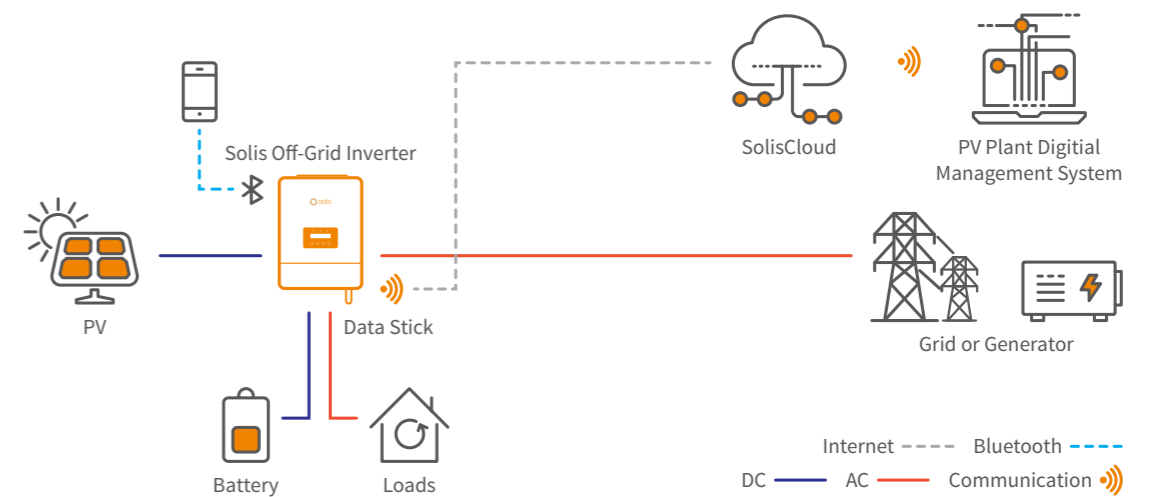
# Off-grid Energy Storage Solutions



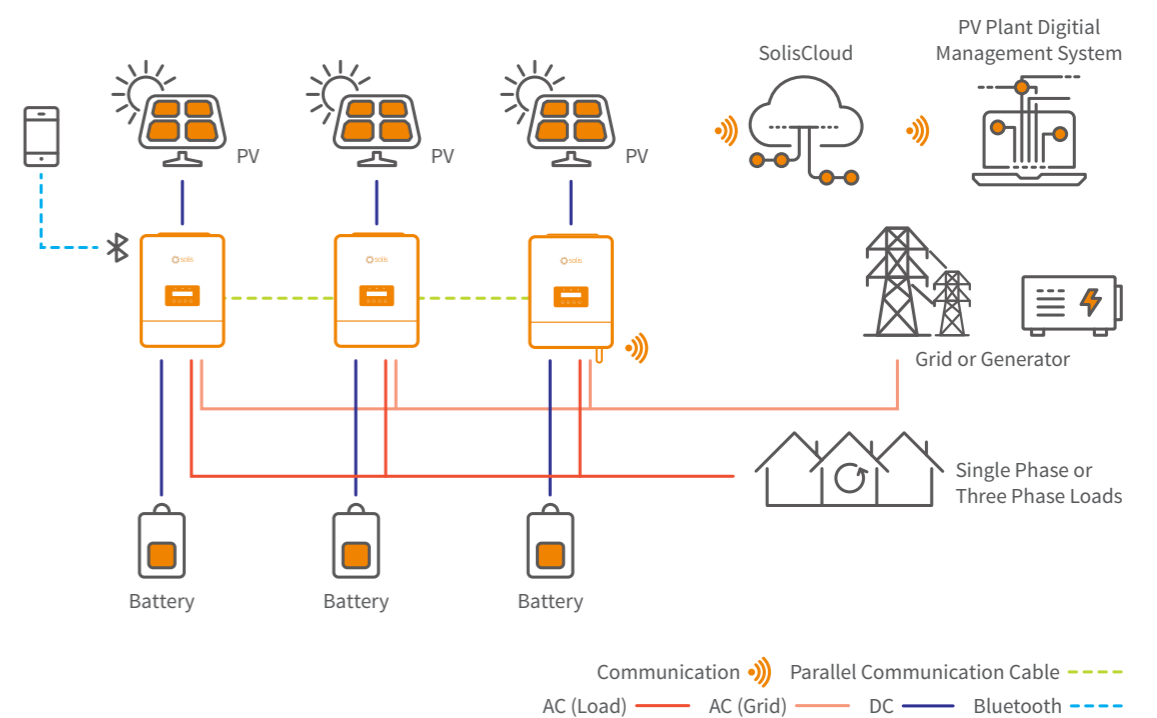
Solis EO series inverter is designed for residential off-grid systems in the countries without stable grid power, which can work with batteries to supply power to load and can also charge the batteries through PV plants, grid or generator.

The product has a variety of application scenarios combination modes, and can realize modular system assembly configuration according to needs. And can provide multiple products in parallel to form up to 50kW three-phase or single-phase parallel operation system, which is very suitable for small industrial, commercial or residential energy storage projects.

## Off-grid Energy Storage Solution - Single EO Inverter



## Off-grid Energy Storage Solution - Multiple Parallel EO Inverters



## S5-EO1P(4-5)K-48

### Solis Energy Storage Inverters

#### Flexible Communications

- Integrated LCD display
- Built-in bluetooth communication
- Remote control & firmware upgrade

#### Adaptive

- Configurable AC/solar input priority based on applications
- Single phase parallel operation up to 10 units (50kW)
- Intelligent EMS function

#### High Performance

- 80 Amp AC charger and 100 Amp solar charger
- Maximum PV input voltage up to 500VDC
- Built-in MPPT solar charge controller

#### Battery Friendly

- Compatible with all top-tier brands of lithium batteries and lead-acid batteries
- Battery equalization for increased battery performance and lifespan
- Functional with or without a battery
- One-click fast charging mode
- Manual wakeup the overdischarged battery to extend battery lifespan

#### Models:

S5-EO1P4K-48 / S5-EO1P4K-48-P

S5-EO1P5K-48 / S5-EO1P5K-48-P



360° View



## DATASHEET

## S5-EO1P(4-5)K-48

| Models  | 4K   | 4K-P          | 5K           | 5K-P          |
|---|--|---------------|--------------|---------------|
| Parallel capability                               | No   | Yes, 10 units | No           | Yes, 10 units |
| <b>Battery</b>                                    |  |               |              |               |
| Rated battery voltage                             | 48 V   |               |              |               |
| Battery type                                      | Li-ion / Lead-acid                                       |               |              |               |
| Max. charge / discharge current                   | 100 A  |               |              |               |
| Communication                                     | CAN/RS485  |               |              |               |
| <b>Inverter Output</b>                            |  |               |              |               |
| Rated output power                                | 4 kVA / 4 kW   |               | 5 kVA / 5 kW |               |
| Rated output voltage                              | 230 V ± 1%   |               |              |               |
| Rated frequency                                   | 50 Hz ± 0.1%   |               |              |               |
| Surge capacity                                    | 8 kVA  |               | 10 kVA       |               |
| Output voltage waveform                           | Pure sine wave   |               |              |               |
| Transfer time                                     | 10 ms typical, 20 ms Max                                 |               |              |               |
| THDv (@linear load)                               | <3%  |               |              |               |
| Peak efficiency (PV-AC)                           | 96.7%  |               |              |               |
| <b>Solar Charger</b>                              |  |               |              |               |
| Solar charger type                                | MPPT   |               |              |               |
| Recommended max. PV power                         | 5 kW   |               | 5.5 kW       |               |
| Max. input voltage                                | 500 V  |               |              |               |
| MPPT voltage range                                | 90-480 V   |               |              |               |
| MPPT number/Max. input strings number             | 1/2  |               |              |               |
| Max. input current per MPPT                       | 26 A <sup>(1)</sup>                                      |               |              |               |
| Max. solar charge current                         | 100 A  |               |              |               |
| <b>AC Charger</b>                                 |  |               |              |               |
| Rated input voltage                               | 230 V  |               |              |               |
| Selectable voltage range                          | 90-280 V   |               |              |               |
| AC frequency range                                | 50 Hz (Auto sensing)                                     |               |              |               |
| Max. AC charge current                            | 60 A   |               | 80 A         |               |
| <b>Protection</b>                                 |  |               |              |               |
| Output over voltage protection                    | Yes  |               |              |               |
| Output over current protection                    | Yes  |               |              |               |
| Short circuit protection                          | Yes  |               |              |               |
| Surge protection                                  | Yes  |               |              |               |
| Temperature protection                            | Yes  |               |              |               |
| Integrated AFCI (DC arc-fault circuit protection) | Yes  |               |              |               |
| <b>General Data</b>                               |  |               |              |               |
| Dimensions (W*H*D)                                | 335*450*160 mm   |               |              |               |
| Weight  | 14 kg  |               |              |               |
| Relative humidity                                 | 5% to 95% (Non-condensing)                               |               |              |               |
| Operating ambient temperature range               | -10 ~ +60°C  |               |              |               |
| Storage temperature range                         | -25 ~ +60°C  |               |              |               |
| Ingress protection                                | IP21   |               |              |               |
| Max. operation altitude                           | 2000 m   |               |              |               |
| Safety standard                                   | IEC 62109, IEC 61000                                     |               |              |               |
| <b>Features</b>                                   |  |               |              |               |
| DC connection                                     | Terminal connectors                                      |               |              |               |
| AC connection                                     | Terminal connectors                                      |               |              |               |
| Display   | LCD  |               |              |               |
| Communication                                     | CAN, BMS, RS485, Dry-contact, Bluetooth, Optional: Wi-Fi |               |              |               |

(1) Max. input current per string will be 26A for one string's design and 13A for two strings' design;  
Max. input short current per string will be 32A for one string's design and 16A for two strings' design.

# Commercial & Industrial Solar PV Solutions

Solis industrial and commercial string inverter product line is rich, the power range covers 25kW - 110kW, no matter how large your design and requirements are, we can rely on our flexible products to provide you with the best industry green power solutions.

Solis provides the most extensive industrial and commercial string inverter products on the market, and the products are sold well in various countries and regions in the world. They perform well in various harsh and complex environments, and are very stable and reliable.

Solis' C&I products are compatible with modularity and flexibility in program design. From the perspective of inverter performance improvement, we provide an ideal solution for simplifying system planning and design. Including optimizing software algorithms, optimizing hardware port compatibility, etc., to improve system efficiency and reduce system investment costs.

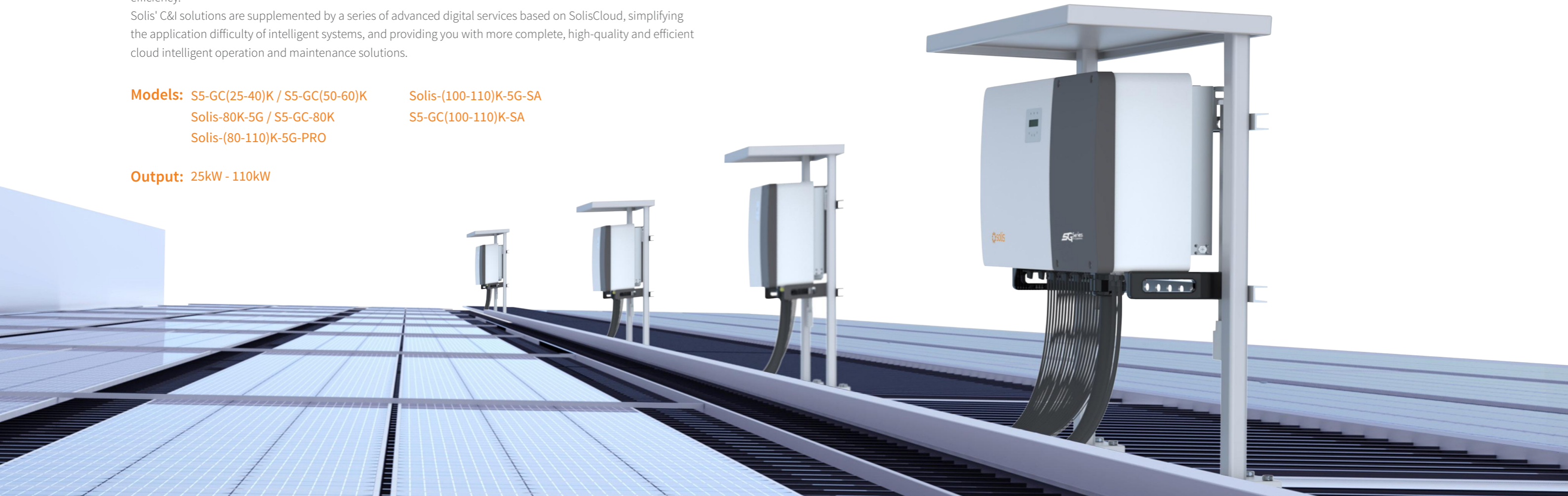
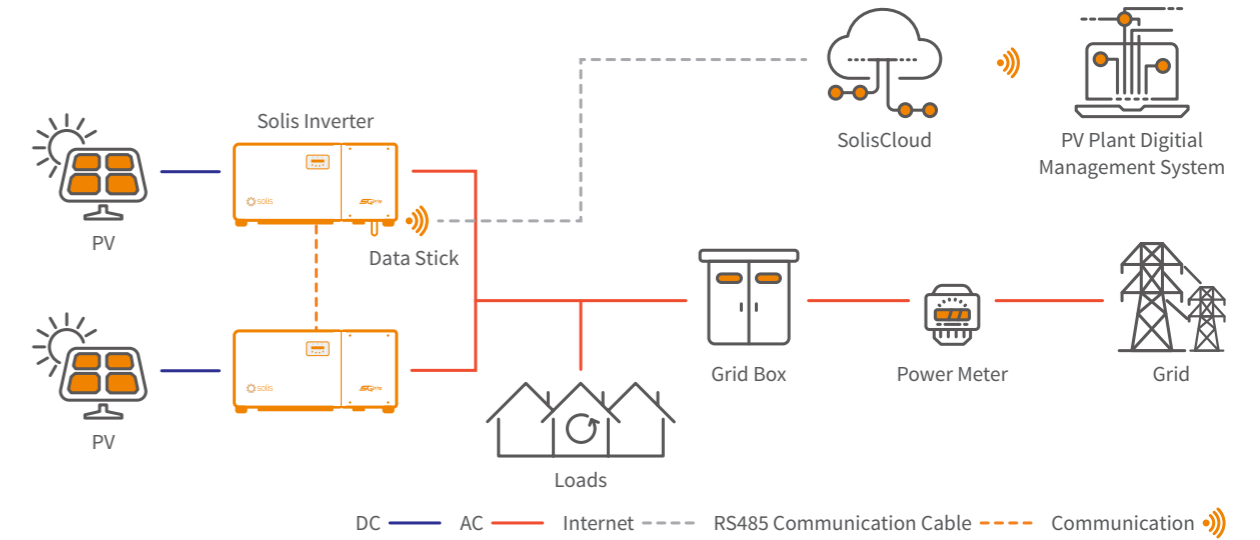
The power range of Solis' C&I products covers a wide range, with a single power up to 110kW. High-efficiency and high-power-density inverters can reduce installation and maintenance workloads and improve overall cost efficiency.

Solis' C&I solutions are supplemented by a series of advanced digital services based on SolisCloud, simplifying the application difficulty of intelligent systems, and providing you with more complete, high-quality and efficient cloud intelligent operation and maintenance solutions.

**Models:** S5-GC(25-40)K / S5-GC(50-60)K      Solis-(100-110)K-5G-SA  
 Solis-80K-5G / S5-GC-80K                      S5-GC(100-110)K-SA  
 Solis-(80-110)K-5G-PRO

**Output:** 25kW - 110kW

## Commercial & Industrial Solar PV Solution



**S5-GC(25-40)K****Solis Three Phase Inverters****Efficient**

- Max. efficiency 98.7%
- String current up to 16A
- 3/4 MPPT design, supports multiple orientation system design
- Night time PID recovery function, increases overall system yield (optional)
- Wide voltage range and low startup voltage

**Smart**

- Supports export power control
- Intelligent string monitoring, smart I-V curve scan
- Supports RS485, WiFi, GPRS
- Scan to register on SolisCloud, supports remote upgrade and control

**Safe**

- IP66
- AFCI protection, proactively reduces fire risk
- Globally recognised branded componentry for longer life
- Intelligent redundant fan-cooling

**Economic**

- Supports GPRS/WiFi communication with less wiring and reduced installation costs
- > 150% DC/AC ratio
- Supports high power modules for lower installation costs
- Supports aluminium wire access to reduce cost

**Models:**

S5-GC25K / S5-GC30K

S5-GC33K / S5-GC36K

S5-GC40K



360° View

**DATASHEET****S5-GC(25-40)K**

| Models  | 25K  | 30K             | 33K             | 36K             | 40K             |
|---|--|-----------------|-----------------|-----------------|-----------------|
| <b>Input DC</b>                                   |  |                 |                 |                 |                 |
| Recommended max. PV power                         | 37.5 kW  | 45 kW           | 49.5 kW         | 54 kW           | 60 kW           |
| Max. input voltage                                | 1100 V   |                 |                 |                 |                 |
| Rated voltage                                     | 600 V  |                 |                 |                 |                 |
| Start-up voltage                                  | 180 V  |                 |                 |                 |                 |
| MPPT voltage range                                | 200-1000 V   |                 |                 |                 |                 |
| Max. input current                                | 32 A / 32 A / 32 A   |                 |                 | 4*32 A          |                 |
| Max. short circuit current                        | 40 A / 40 A / 40 A   |                 |                 | 4*40 A          |                 |
| MPPT number/Max. input strings number             | 3/6  |                 |                 | 4/8             |                 |
| <b>Output AC</b>                                  |  |                 |                 |                 |                 |
| Rated output power                                | 25 kW  | 30 kW           | 33 kW           | 36 kW           | 40 kW           |
| Max. apparent output power                        | 27.5 kVA   | 33 kVA          | 36.3 kVA        | 39.6 kVA        | 44 kVA          |
| Max. output power                                 | 27.5 kW  | 33 kW           | 36.3 kW         | 39.6 kW         | 44 kW           |
| Rated grid voltage                                | 3/N/PE, 220 V / 380 V, 230 V / 400 V   |                 |                 |                 |                 |
| Rated grid frequency                              | 50 Hz  |                 |                 |                 |                 |
| Rated grid output current                         | 38.0 A / 36.1 A  | 45.6 A / 43.3 A | 50.1 A / 47.6 A | 54.7 A / 52.0 A | 60.8 A / 57.7 A |
| Max. output current                               | 41.8 A   | 50.2 A          | 55.1 A          | 60.2 A          | 66.9 A          |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)  |                 |                 |                 |                 |
| THDi  | <3%  |                 |                 |                 |                 |
| <b>Efficiency</b>                                 |  |                 |                 |                 |                 |
| Max. efficiency                                   | 98.5%  |                 | 98.6%           |                 | 98.7%           |
| EU efficiency                                     | 98.1%  |                 | 98.2%           |                 | 98.3%           |
| <b>Protection</b>                                 |  |                 |                 |                 |                 |
| DC reverse-polarity protection                    | Yes  |                 |                 |                 |                 |
| Short circuit protection                          | Yes  |                 |                 |                 |                 |
| Output over current protection                    | Yes  |                 |                 |                 |                 |
| Surge protection                                  | DC Type II / AC Type II  |                 |                 |                 |                 |
| Grid monitoring                                   | Yes  |                 |                 |                 |                 |
| Anti-islanding protection                         | Yes  |                 |                 |                 |                 |
| Temperature protection                            | Yes  |                 |                 |                 |                 |
| Strings monitoring                                | Yes  |                 |                 |                 |                 |
| I/V Curve scanning                                | Yes  |                 |                 |                 |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>   |                 |                 |                 |                 |
| Integrated PID recovery                           | Optional   |                 |                 |                 |                 |
| Integrated DC switch                              | Optional   |                 |                 |                 |                 |
| <b>General Data</b>                               |  |                 |                 |                 |                 |
| Dimensions (W*H*D)                                | 647*629*252 mm   |                 |                 |                 |                 |
| Weight  | 37 kg  |                 |                 |                 |                 |
| Topology  | Transformerless  |                 |                 |                 |                 |
| Self-consumption (night)                          | <1 W   |                 |                 |                 |                 |
| Operating ambient temperature range               | -25 ~ +60°C  |                 |                 |                 |                 |
| Relative humidity                                 | 0-100%   |                 |                 |                 |                 |
| Ingress protection                                | IP66   |                 |                 |                 |                 |
| Cooling concept                                   | Intelligent redundant fan-cooling  |                 |                 |                 |                 |
| Max. operation altitude                           | 4000 m   |                 |                 |                 |                 |
| Grid connection standard                          | G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, RD 1699 / RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC60068, IEC 61683, EN 50530 |                 |                 |                 |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4   |                 |                 |                 |                 |
| <b>Features</b>                                   |  |                 |                 |                 |                 |
| DC connection                                     | MC4 connector  |                 |                 |                 |                 |
| AC connection                                     | OT terminal  |                 |                 |                 |                 |
| Display   | LCD  |                 |                 |                 |                 |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS   |                 |                 |                 |                 |

(1) Activation required.

**S5-GC(50-60)K****Solis Three Phase Inverters****Efficient**

- Max. efficiency 98.7%
- String current up to 16A
- 5/6 MPPT design, supports multiple orientation system design
- Night time PID recovery function, increases overall system yield (optional)

**Smart**

- Night SVG function
- Supports export power control
- Intelligent string monitoring, smart I-V curve scan
- Scan to register on SolisCloud, supports remote upgrade and control

**Safe**

- IP66, C5 Anti-Corrosion Level
- Intelligent redundant fan-cooling
- Globally recognised branded componentry for longer life
- AFCI protection, proactively reduces fire risk

**Economic**

- Supports GPRS/WiFi communication with less wiring and reduced installation costs
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost
- 10/12 string inputs allow for 150%+ DC oversizing

**Models:**

S5-GC50K

S5-GC60K



360° View

**DATASHEET****S5-GC(50-60)K**

| Models  | 50K  | 60K             |
|---|--|-----------------|
| <b>Input DC</b>                                   |  |                 |
| Max. input voltage                                | 1100 V   |                 |
| Rated voltage                                     | 600 V  |                 |
| Start-up voltage                                  | 195 V  |                 |
| MPPT voltage range                                | 180-1000 V   |                 |
| Max. input current                                | 5*32 A   | 6*32 A          |
| Max. short circuit current                        | 5*40 A   | 6*40 A          |
| MPPT number/Max. input strings number             | 5/10   | 6/12            |
| <b>Output AC</b>                                  |  |                 |
| Rated output power                                | 50 kW  | 60 kW           |
| Max. apparent output power                        | 55 kVA   | 66 kVA          |
| Max. output power                                 | 55 kW  | 66 kW           |
| Rated grid voltage                                | 3/N/PE, 220 V / 380 V, 230 V / 400 V   |                 |
| Rated grid frequency                              | 50 Hz  |                 |
| Rated grid output current                         | 76.0 A / 72.2 A  | 91.2 A / 86.6 A |
| Max. output current                               | 83.6 A   | 100.3 A         |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)  |                 |
| THDi  | <3%  |                 |
| <b>Efficiency</b>                                 |  |                 |
| Max. efficiency                                   | 98.7%  |                 |
| EU efficiency                                     | 98.3%  |                 |
| <b>Protection</b>                                 |  |                 |
| DC reverse-polarity protection                    | Yes  |                 |
| Short circuit protection                          | Yes  |                 |
| Output over current protection                    | Yes  |                 |
| Surge protection                                  | DC Type II / AC Type II (DC Type I optional)   |                 |
| Grid monitoring                                   | Yes  |                 |
| Anti-islanding protection                         | Yes  |                 |
| Temperature protection                            | Yes  |                 |
| Strings monitoring                                | Yes  |                 |
| I/V Curve scanning                                | Yes  |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>   |                 |
| Integrated PID recovery                           | Optional <sup>(2)</sup>  |                 |
| Integrated DC switch                              | Optional   |                 |
| <b>General Data</b>                               |  |                 |
| Dimensions (W*H*D)                                | 691*578*338 mm   |                 |
| Weight  | 54.5 kg  |                 |
| Topology  | Transformerless  |                 |
| Self-consumption (night)                          | <1 W   |                 |
| Operating ambient temperature range               | -25 ~ +60°C  |                 |
| Relative humidity                                 | 0-100%   |                 |
| Ingress protection                                | IP66   |                 |
| Cooling concept                                   | Intelligent redundant fan-cooling  |                 |
| Max. operation altitude                           | 4000 m   |                 |
| Grid connection standard                          | G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, RD 1699 / RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC60068, IEC 61683, EN 50530 |                 |
| Safety/EMC standard                               | IEC 62109-1/-2, IEC62116 & IEC 61000-6-1/-2/-3/-4  |                 |
| <b>Features</b>                                   |  |                 |
| DC connection                                     | MC4 connector  |                 |
| AC connection                                     | OT terminal (max. 70 mm <sup>2</sup> )   |                 |
| Display   | LCD, Capacitive touch buttons  |                 |
| Communication                                     | RS485, USB, Optional: Wi-Fi, GPRS  |                 |

(1) Activation required. (2) Due to the similar functional logic, when the night time PID-Recovery function is integrated, the night time var compensation function can not be used. Also, the negative grounding option is not available for inverters with night time PID-Recovery function.

## Solis-80K-5G

### Solis Three Phase Inverters

#### Efficient

- 9 MPPTs, max. efficiency 98.7%
- > 150% DC/AC ratio
- Compatible with bifacial modules

#### Smart

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

#### Safe

- IP66
- Built-in PID recovery for better module performance (optional)
- AFCI protection, proactively reduces fire risk
- Globally recognised branded componentry for longer life

#### Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost

#### Models:

Solis-80K-5G



360° View

## DATASHEET

## Solis-80K-5G

| Models  | 80K   |
|---|---|
| <b>Input DC</b>                                   |   |
| Max. input voltage                                | 1100 V  |
| Rated voltage                                     | 600 V   |
| Start-up voltage                                  | 195 V   |
| MPPT voltage range                                | 180-1000 V  |
| Max. input current                                | 9*26 A  |
| Max. short circuit current                        | 9*40 A  |
| MPPT number/Max. input strings number             | 9/18  |
| <b>Output AC</b>                                  |   |
| Rated output power                                | 80 kW   |
| Max. apparent output power                        | 88 kVA  |
| Max. output power                                 | 88 kW   |
| Rated grid voltage                                | 3/N/PE, 220 V / 380 V, 230 V / 400 V  |
| Rated grid frequency                              | 50 Hz   |
| Rated grid output current                         | 121.6 A / 115.5 A   |
| Max. output current                               | 133.7 A   |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)   |
| THDi  | <3%   |
| <b>Efficiency</b>                                 |   |
| Max. efficiency                                   | 98.7%   |
| EU efficiency                                     | 98.3%   |
| <b>Protection</b>                                 |   |
| DC reverse-polarity protection                    | Yes   |
| Short circuit protection                          | Yes   |
| Output over current protection                    | Yes   |
| Surge protection                                  | DC Type II / AC Type II   |
| Grid monitoring                                   | Yes   |
| Anti-islanding protection                         | Yes   |
| Temperature protection                            | Yes   |
| Strings monitoring                                | Yes   |
| I/V Curve scanning                                | Yes   |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>  |
| Integrated PID recovery                           | Optional  |
| Integrated DC switch                              | Yes   |
| Integrated AC switch                              | Optional  |
| <b>General Data</b>                               |   |
| Dimensions (W*H*D)                                | 1050*567*314.5 mm (with AC switch)  |
| Weight  | 82 kg   |
| Topology  | Transformerless   |
| Self-consumption (night)                          | <2 W  |
| Operating ambient temperature range               | -30 ~ +60°C   |
| Relative humidity                                 | 0-100%  |
| Ingress protection                                | IP66  |
| Cooling concept                                   | Intelligent redundant fan-cooling   |
| Max. operation altitude                           | 4000 m  |
| Grid connection standard                          | G98 or G99, VDE-AR-N 4105 / VDE-AR-N 4110 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4  |
| <b>Features</b>                                   |   |
| DC connection                                     | MC4 connector   |
| AC connection                                     | OT terminal (max. 185 mm <sup>2</sup> )   |
| Display   | LCD   |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS, PLC   |

(1) Activation required.

**S5-GC-80K****Solis Three Phase Inverters****Efficient**

- 9 MPPTs, max. efficiency 98.7%
- > 150% DC/AC ratio
- String current up to 16A, perfectly match large current bifacial modules

**Smart**

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

**Safe**

- IP66
- Built-in PID recovery for better module performance (optional)
- AFCI protection, proactively reduces fire risk
- Globally recognised branded componentry for longer life

**Economic**

- Power line communication (PLC) (optional)
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost

**Models:**

S5-GC-80K



360° View

**DATASHEET****S5-GC-80K**

| Models  | 80K   |
|---|---|
| <b>Input DC</b>                                   |   |
| Max. input voltage                                | 1100 V  |
| Rated voltage                                     | 600 V   |
| Start-up voltage                                  | 195 V   |
| MPPT voltage range                                | 180-1000 V  |
| Max. input current                                | 9*32 A  |
| Max. short circuit current                        | 9*40 A  |
| MPPT number/Max. input strings number             | 9/18  |
| <b>Output AC</b>                                  |   |
| Rated output power                                | 80 kW   |
| Max. apparent output power                        | 88 kVA  |
| Max. output power                                 | 88 kW   |
| Rated grid voltage                                | 3/N/PE, 220 V / 380 V, 230 V / 400 V  |
| Rated grid frequency                              | 50 Hz   |
| Rated grid output current                         | 121.6 A / 115.5 A   |
| Max. output current                               | 133.7 A   |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)   |
| THDi  | <3%   |
| <b>Efficiency</b>                                 |   |
| Max. efficiency                                   | 98.7%   |
| EU efficiency                                     | 98.3%   |
| <b>Protection</b>                                 |   |
| DC reverse-polarity protection                    | Yes   |
| Short circuit protection                          | Yes   |
| Output over current protection                    | Yes   |
| Surge protection                                  | DC Type II / AC Type II   |
| Grid monitoring                                   | Yes   |
| Anti-islanding protection                         | Yes   |
| Temperature protection                            | Yes   |
| Strings monitoring                                | Yes   |
| I/V Curve scanning                                | Yes   |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>  |
| Integrated PID recovery                           | Optional  |
| Integrated DC switch                              | Yes   |
| Integrated AC switch                              | Optional  |
| <b>General Data</b>                               |   |
| Dimensions (W*H*D)                                | 1050*567*314.5 mm (with AC switch)  |
| Weight  | 85 kg   |
| Topology  | Transformerless   |
| Self-consumption (night)                          | <2 W  |
| Operating ambient temperature range               | -30 ~ +60°C   |
| Relative humidity                                 | 0-100%  |
| Ingress protection                                | IP66  |
| Cooling concept                                   | Intelligent redundant fan-cooling   |
| Max. operation altitude                           | 4000 m  |
| Grid connection standard                          | G98 or G99, VDE-AR-N 4105 / VDE-AR-N 4110 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4  |
| <b>Features</b>                                   |   |
| DC connection                                     | MC4 connector   |
| AC connection                                     | OT terminal (max. 185 mm <sup>2</sup> )   |
| Display   | LCD   |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS, PLC   |

(1) Activation required.

## Solis-(80-110)K-5G-PRO

### Solis Three Phase Inverters

#### Efficient

- 6/8 MPPTs, max. efficiency 98.5%
- > 150% DC/AC ratio
- Compatible with bifacial modules

#### Smart

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

#### Safe

- IP66
- AFCI protection, proactively reduces fire risk
- Built-in PID recovery for better module performance (optional)
- Globally recognised branded componentry for longer life

#### Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost

#### Models:

- Solis-80K-5G-PRO
- Solis-100K-5G-PRO
- Solis-110K-5G-PRO



## DATASHEET

### Solis-(80-110)K-5G-PRO

| Models  | 80K                                     | 100K  | 110K              |
|---|---|---|-------------------|
| <b>Input DC</b>                                   |   |   |                   |
| Max. input voltage                                | 1100 V                                  |   |                   |
| Rated voltage                                     | 600 V                                   |   |                   |
| Start-up voltage                                  | 180 V                                   |   |                   |
| MPPT voltage range                                | 160-1000 V                              |   |                   |
| Max. input current                                | 36 A / 32 A / 36 A / 32 A / 36 A / 32 A | 36 A / 32 A / 36 A / 32 A / 36 A / 32 A / 36 A / 32 A |                   |
| Max. short circuit current                        | 6*50 A                                  | 8*50 A  |                   |
| MPPT number/Max. input strings number             | 6/12                                    | 8/16  |                   |
| <b>Output AC</b>                                  |   |   |                   |
| Rated output power                                | 80 kW                                   | 100 kW  | 110 kW            |
| Max. apparent output power                        | 88 kVA                                  | 110 kVA   | 121 kVA           |
| Max. output power                                 | 88 kW                                   | 110 kW  | 121 kW            |
| Rated grid voltage                                | 3/N/PE, 220 V / 380 V, 230 V / 400 V    |   |                   |
| Rated grid frequency                              | 50 Hz                                   |   |                   |
| Rated grid output current                         | 121.6 A / 115.5 A                       | 152.0 A / 144.3 A                                     | 167.1 A / 158.8 A |
| Max. output current                               | 133.7 A                                 | 167.1 A   | 183.8 A           |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)       |   |                   |
| THDi  | <3%                                     |   |                   |
| <b>Efficiency</b>                                 |   |   |                   |
| Max. efficiency                                   | 98.5%                                   |   |                   |
| EU efficiency                                     | 98.0%                                   |   |                   |
| <b>Protection</b>                                 |   |   |                   |
| DC reverse-polarity protection                    | Yes                                     |   |                   |
| Short circuit protection                          | Yes                                     |   |                   |
| Output over current protection                    | Yes                                     |   |                   |
| Surge protection                                  | DC Type II / AC Type II                 |   |                   |
| Grid monitoring                                   | Yes                                     |   |                   |
| Anti-islanding protection                         | Yes                                     |   |                   |
| Temperature protection                            | Yes                                     |   |                   |
| Strings monitoring                                | Yes                                     |   |                   |
| I/V Curve scanning                                | Yes                                     |   |                   |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>                      |   |                   |
| Integrated PID recovery                           | Optional                                |   |                   |
| Integrated DC switch                              | Yes                                     |   |                   |
| Integrated AC switch                              | Optional                                |   |                   |
| <b>General Data</b>                               |   |   |                   |
| Dimensions (W*H*D)                                | 1065 * 585 * 363.5 mm (with AC switch)  | 1183*585*363 mm                                       |                   |
| Weight  | 77 kg                                   | 93 kg   |                   |
| Topology  | Transformerless                         |   |                   |
| Self-consumption (night)                          | <2 W                                    |   |                   |
| Operating ambient temperature range               | -30 ~ +60°C                             |   |                   |
| Relative humidity                                 | 0-100%                                  |   |                   |
| Ingress protection                                | IP66                                    |   |                   |
| Cooling concept                                   | Intelligent redundant fan-cooling       |   |                   |
| Max. operation altitude                           | 4000 m                                  |   |                   |
| Grid connection standard                          | G99, IEC61727, EN50549-1/2, VDE4110     |   |                   |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4  |   |                   |
| <b>Features</b>                                   |   |   |                   |
| DC connection                                     | MC4 connector                           |   |                   |
| AC connection                                     | OT terminal (max. 240 mm <sup>2</sup> ) |   |                   |
| Display   | LCD                                     |   |                   |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS, PLC       |   |                   |

(1) Activation required.

## Solis-(100-110)K-5G-SA

### Solis Three Phase Inverters

#### Efficient

- 10 MPPTs, max. efficiency 98.7%
- > 150% DC/AC ratio
- High power tracking density 90MPPT/MW
- Compatible with bifacial modules

#### Smart

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

#### Safe

- AFCI protection, proactively reduces fire risk
- Built-in PID recovery for better module performance (optional)
- Type I SPD for DC (standard) and AC (optional)
- Overvoltage load reduction and leakage current suppression technology, low failure rate
- Globally recognised branded componentry for longer life

#### Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost

#### Models:

Solis-100K-5G-SA

Solis-110K-5G-SA



360° View

## DATASHEET

### Solis-(100-110)K-5G-SA

| Models  | 100K  | 110K              |
|---|---|-------------------|
| <b>Input DC</b>                                   |   |                   |
| Max. input voltage                                | 1100 V                                      |                   |
| Rated voltage                                     | 600 V                                       |                   |
| Start-up voltage                                  | 195 V                                       |                   |
| MPPT voltage range                                | 180-1000 V                                  |                   |
| Max. input current                                | 10*26 A                                     |                   |
| Max. short circuit current                        | 10*40 A                                     |                   |
| MPPT number/Max. input strings number             | 10/20                                       |                   |
| <b>Output AC</b>                                  |   |                   |
| Rated output power                                | 100 kW                                      | 110 kW            |
| Max. apparent output power                        | 110 kVA                                     | 121 kVA           |
| Max. output power                                 | 110 kW                                      | 121 kW            |
| Rated grid voltage                                | 3/N/PE, 220 V / 380 V, 230 V / 400 V        |                   |
| Rated grid frequency                              | 50 Hz                                       |                   |
| Rated grid output current                         | 152.0 A / 144.3 A                           | 167.1 A / 158.8 A |
| Max. output current                               | 167.1 A                                     | 183.8 A           |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)           |                   |
| THDi  | <3%   |                   |
| <b>Efficiency</b>                                 |   |                   |
| Max. efficiency                                   | 98.7%                                       |                   |
| EU efficiency                                     | 98.3%                                       |                   |
| <b>Protection</b>                                 |   |                   |
| DC reverse-polarity protection                    | Yes   |                   |
| Short circuit protection                          | Yes   |                   |
| Output over current protection                    | Yes   |                   |
| Surge protection                                  | DC Type I / AC Type II (AC Type I optional) |                   |
| Grid monitoring                                   | Yes   |                   |
| Anti-islanding protection                         | Yes   |                   |
| Temperature protection                            | Yes   |                   |
| Strings monitoring                                | Yes   |                   |
| I/V Curve scanning                                | Yes   |                   |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>                          |                   |
| Integrated PID recovery                           | Optional                                    |                   |
| Integrated DC switch                              | Yes   |                   |
| Integrated AC switch                              | Optional                                    |                   |
| <b>General Data</b>                               |   |                   |
| Dimensions (W*H*D)                                | 1065*567*344.5 mm                           |                   |
| Weight  | 91 kg                                       |                   |
| Topology  | Transformerless                             |                   |
| Self-consumption (night)                          | <2 W  |                   |
| Operating ambient temperature range               | -30 ~ +60°C                                 |                   |
| Relative humidity                                 | 0-100%                                      |                   |
| Ingress protection                                | IP66  |                   |
| Cooling concept                                   | Intelligent redundant fan-cooling           |                   |
| Max. operation altitude                           | 4000 m                                      |                   |
| Grid connection standard                          | NRS 097-2-1                                 |                   |
| Safety/EMC standard                               | IEC 62109-1/-2, IEC 61000-6-2/-4            |                   |
| <b>Features</b>                                   |   |                   |
| DC connection                                     | MC4 connector                               |                   |
| AC connection                                     | OT terminal (max. 185 mm <sup>2</sup> )     |                   |
| Display   | LCD   |                   |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS, PLC           |                   |

(1) Activation required.

## S5-GC(100-110)K-SA

### Solis Three Phase Inverters

#### Efficient

- 10 MPPTs, max. efficiency 98.7%
- > 150% DC/AC ratio
- High power tracking density 90MPPT/MW
- String current up to 16A, perfectly match large current bifacial modules

#### Smart

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

#### Safe

- AFCI protection, proactively reduces fire risk
- Built-in PID recovery for better module performance (optional)
- Type I SPD for DC (standard) and AC (optional)
- Overvoltage load reduction and leakage current suppression technology, low failure rate
- Globally recognised branded componentry for longer life

#### Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost

#### Models:

S5-GC100K-SA

S5-GC110K-SA



## DATASHEET

## S5-GC(100-110)K-SA

| Models  | 100K  | 110K              |
|---|---|-------------------|
| <b>Input DC</b>                                   |   |                   |
| Max. input voltage                                | 1100 V                                      |                   |
| Rated voltage                                     | 600 V                                       |                   |
| Start-up voltage                                  | 195 V                                       |                   |
| MPPT voltage range                                | 180-1000 V                                  |                   |
| Max. input current                                | 10*32 A                                     |                   |
| Max. short circuit current                        | 10*40 A                                     |                   |
| MPPT number/Max. input strings number             | 10/20                                       |                   |
| <b>Output AC</b>                                  |   |                   |
| Rated output power                                | 100 kW                                      | 110 kW            |
| Max. apparent output power                        | 110 kVA                                     | 121 kVA           |
| Max. output power                                 | 110 kW                                      | 121 kW            |
| Rated grid voltage                                | 3/N/PE, 220 V / 380 V, 230 V / 400 V        |                   |
| Rated grid frequency                              | 50 Hz                                       |                   |
| Rated grid output current                         | 152.0 A / 144.3 A                           | 167.1 A / 158.8 A |
| Max. output current                               | 167.1 A                                     | 183.8 A           |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)           |                   |
| THDi  | <3%   |                   |
| <b>Efficiency</b>                                 |   |                   |
| Max. efficiency                                   | 98.7%                                       |                   |
| EU efficiency                                     | 98.3%                                       |                   |
| <b>Protection</b>                                 |   |                   |
| DC reverse-polarity protection                    | Yes   |                   |
| Short circuit protection                          | Yes   |                   |
| Output over current protection                    | Yes   |                   |
| Surge protection                                  | DC Type I / AC Type II (AC Type I optional) |                   |
| Grid monitoring                                   | Yes   |                   |
| Anti-islanding protection                         | Yes   |                   |
| Temperature protection                            | Yes   |                   |
| Strings monitoring                                | Yes   |                   |
| I/V Curve scanning                                | Yes   |                   |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>                          |                   |
| Integrated PID recovery                           | Optional                                    |                   |
| Integrated DC switch                              | Yes   |                   |
| Integrated AC switch                              | Optional                                    |                   |
| <b>General Data</b>                               |   |                   |
| Dimensions (W*H*D)                                | 1065*567*344.5 mm                           |                   |
| Weight  | 91 kg                                       |                   |
| Topology  | Transformerless                             |                   |
| Self-consumption (night)                          | <2 W  |                   |
| Operating ambient temperature range               | -30 ~ +60°C                                 |                   |
| Relative humidity                                 | 0-100%                                      |                   |
| Ingress protection                                | IP66  |                   |
| Cooling concept                                   | Intelligent redundant fan-cooling           |                   |
| Max. operation altitude                           | 4000 m                                      |                   |
| Grid connection standard                          | NRS 097-2-1                                 |                   |
| Safety/EMC standard                               | IEC 62109-1/-2, IEC 61000-6-1/-2/-3/-4      |                   |
| <b>Features</b>                                   |   |                   |
| DC connection                                     | MC4 connector                               |                   |
| AC connection                                     | OT terminal (max. 185 mm <sup>2</sup> )     |                   |
| Display   | LCD   |                   |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS, PLC           |                   |

(1) Activation required.

## C&I Power Plant Case Study



### Ninghai Power Plant

- China
- 38MW
- Solis-(215-255)K-EHV-5G

Ninghai Power Plant transitions away from traditional thermal power to integrate solar power generation overcoming technical challenges along the way.

Ninghai Power is dedicated to the innovation of greener power through science and technology and has become a leader in Agrisolar development. As a pioneer in its industry the company has implemented a new energy park project which includes fishery-solar system, Agrisolar and floating solar systems, solar carport and



solar corridor as well as a more traditional solar rooftop. Over 8 different installation types have enabled more green energy to be installed in more areas - true "out of the box" thinking.

The solar plant now generates more than 300 billion kilowatts of green energy.



- India
- 1.12MW
- S5-GC(80-110)K



- Greece
- 100kW
- S5-GC(100-110)K

- UK
- 2MW
- Solis-(100-110)K-5G



- Netherlands
- 168.35kW
- Solis-(80-110)K-5G



- Philippines
- 270kW
- Solis-(25-30)K-LV

# Utility Scale Solar PV Solutions



Solis has optimized and innovated around the entire process of utility solar PV solutions. Deeply integrated system design, digital management, and IoT technology effectively optimize the initial investment and future O&M costs of the power station increasing the power generation of the system and the rate of return on investment. Through the concept of "Efficient, safe, reliable, smart O&M, and system-friendly" we maximise the value for customers.

The 1500V high-power system solution can effectively reduce the number of equipment and cable consumption, reduce the initial investment cost, and facilitate installation and maintenance.

Solis utility PV solution has the characteristics of low LCOE. From the perspective of inverter performance improvement, it includes optimizing software algorithms and optimizing hardware port compatibility to improve system efficiency and reduce system investment costs.

Solis utility inverter has a large single power, up to 255kW. The high-efficiency and high-power-density inverter can reduce the workload of installation and maintenance, reduce costs and improve efficiency. Solis utility PV solution is supplemented by a series of advanced digital services and intelligent monitoring equipment based on SolisCloud, simplifying the application difficulty of the intelligent system, and providing a more complete, high-quality and efficient cloud smart O&M solution.

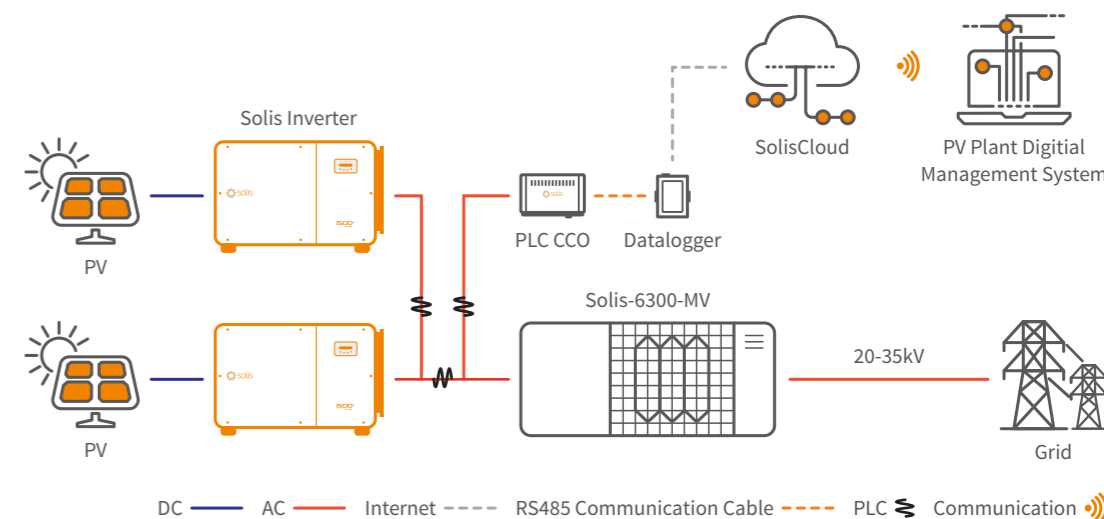
**Models:**

Solis-(215-255)K-EHV-5G

**Output:**

215 kW - 255 kW

**Utility Scale Solar PV Solution**



## Solis-(215-255)K-EHV-5G

### Solis Three Phase Inverters

#### Efficient

- 9/12/14 MPPTs, max. efficiency 99.0%
- > 150% DC/AC ratio
- High power tracking density 55MPPT/MW
- Compatible with 500W+ bifacial modules

#### Smart

- Night SVG function
- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

#### Safe

- IP66
- Built-in PID recovery for better module performance
- Fuse free design, safe and maintenance free
- Globally recognised branded componentry for longer life

#### Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost

#### Models:

Solis-215K-EHV-5G-PLUS

Solis-255K-EHV-5G

Solis-255K-EHV-5G-PLUS



360° View

## DATASHEET

### Solis-(215-255)K-EHV-5G

| Models                                | 215K-PLUS  | 255K                                       | 255K-PLUS |
|---------------------------------------|--|--|-----------|
| <b>Input DC</b>                       |  |  |           |
| Max. input voltage                    | 1500 V   |  |           |
| Rated voltage                         | 1080 V   |  |           |
| Start-up voltage                      | 500 V  |  |           |
| MPPT voltage range                    | 480-1500 V   |  |           |
| Max. input current                    | 9*30 A   | 14*26 A                                    | 12*30 A   |
| Max. short circuit current            | 9*50 A   | 14*40 A                                    | 12*50 A   |
| MPPT number/Max. input strings number | 9/18   | 14/28                                      | 12/24     |
| <b>Output AC</b>                      |  |  |           |
| Output power                          | 215 kVA@30°C / 205 kVA@40°C / 195 kVA@50°C                   | 255 kVA@30°C / 235 kVA@40°C / 220 kVA@50°C |           |
| Rated grid voltage                    | 3/PE, 800 V  |  |           |
| Grid voltage range                    | 640-920 V  |  |           |
| Rated grid frequency                  | 50 Hz  |  |           |
| Max. output current                   | 155.2 A  | 184.0 A                                    |           |
| Power factor                          | >0.99 (0.8 leading - 0.8 lagging)                            |  |           |
| THDi                                  | <3%  |  |           |
| <b>Efficiency</b>                     |  |  |           |
| Max. efficiency                       | 99.0%  |  |           |
| EU efficiency                         | 98.8%  | 98.7%                                      | 98.8%     |
| <b>Protection</b>                     |  |  |           |
| DC reverse-polarity protection        | Yes  |  |           |
| Short circuit protection              | Yes  |  |           |
| Output over current protection        | Yes  |  |           |
| Surge protection                      | DC Type II / AC Type II                                      |  |           |
| Grid monitoring                       | Yes  |  |           |
| Anti-islanding protection             | Yes  |  |           |
| Temperature protection                | Yes  |  |           |
| Strings monitoring                    | Yes  |  |           |
| I/V Curve scanning                    | Yes  |  |           |
| Night time SVG function               | Yes  |  |           |
| Integrated PID recovery               | Yes  |  |           |
| Integrated DC switch                  | Yes  |  |           |
| <b>General Data</b>                   |  |  |           |
| Dimensions (W*H*D)                    | 1125*770*384 mm  |  |           |
| Weight                                | 109 kg   | 113 kg                                     |           |
| Topology                              | Transformerless  |  |           |
| Self-consumption (night)              | <2 W   |  |           |
| Operating ambient temperature range   | -30 ~ +60°C  |  |           |
| Relative humidity                     | 0-100%   |  |           |
| Ingress protection                    | IP66   |  |           |
| Cooling concept                       | Intelligent redundant fan-cooling                            |  |           |
| Max. operation altitude               | 4000 m   |  |           |
| Grid connection standard              | EN50549, G99, AS4777.2, VDE0126, IEC61727, VDE4110, CEA 2019 |  |           |
| Safety/EMC standard                   | IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4                       |  |           |
| <b>Features</b>                       |  |  |           |
| DC connection                         | MC4 connector  |  |           |
| AC connection                         | OT terminal (max. 300 mm <sup>2</sup> )                      |  |           |
| Display                               | LCD  |  |           |
| Communication                         | RS485, Optional: PLC   |  |           |

## Solis-6300-MV

### Solis PV Station

For 1500 V string inverter Solis 255K

#### Integrated delivery

- Mainstream 6.3MW subarray,widely used global
- 20 foot standard container delivery, easy to transport

#### Convenient installation

- A complete solution, from inverter to main step-up transformer
- When the container is lifted to the foundation, only LV and MV cables need to be connected

#### Reliable products

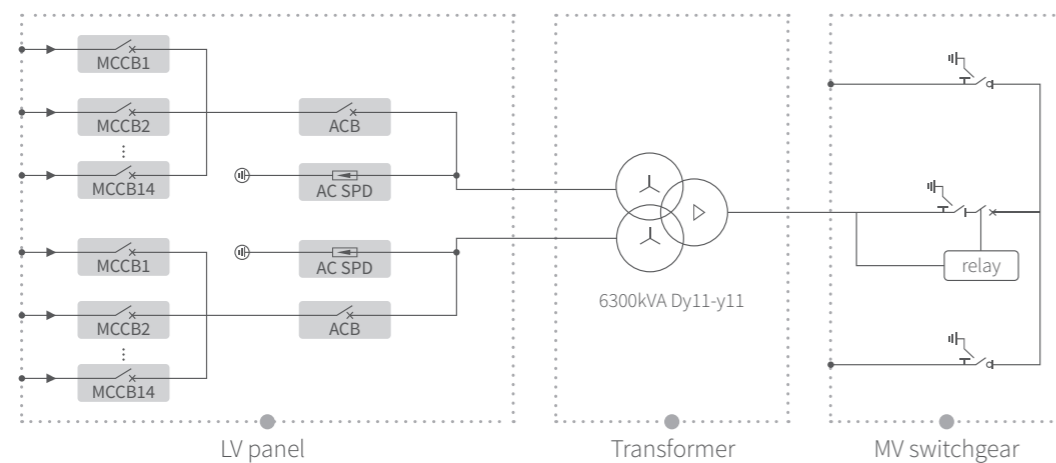
- LV panel, transformer and RMU be placed independently
- Adopt international first-line brand equipment with reliable quality

#### Easy O&M

- Full frontal maintenance design
- Modular design of MV equipment, easy to replace



#### Circuit diagram



## DATASHEET

## Solis-6300-MV

| Models                             | 6300                                     |
|------------------------------------|--|
| <b>LV panel</b>                    |  |
| MCCB specification                 | 250 A / 800 Vac / 3P, 14*2 pcs           |
| ACB specification                  | 3200 A / 800 Vac / 3P, 1*2 pcs           |
| Connection form with transformer   | Copper busbar                            |
| <b>Transformer</b>                 |  |
| Transformer type                   | Oil immersed                             |
| Rated output power                 | 6300 kVA @ 40°C                          |
| Max. output power                  | 6930 kVA @ 40°C 3h                       |
| LV/MV voltage                      | 0.8 kV / 10-35 kV                        |
| Max. input current                 | 2577 A *2                                |
| Tapping on HV                      | ±2*2.5%                                  |
| Vector group                       | Dy11y11                                  |
| Frequency                          | 50 Hz                                    |
| Cooling type                       | ONAN                                     |
| Impedance                          | 7%                                       |
| Oil type                           | Mineral oil (Optional: plant oil)        |
| Winding material                   | Al/Al (Optional: Cu/Cu)                  |
| Insulation class                   | A  |
| Connection form with MV switchgear | Cable                                    |
| <b>MV Switchgear</b>               |  |
| Type of insulate                   | SF6                                      |
| Rated voltage                      | 12-36 kV                                 |
| Rated current                      | 630 A                                    |
| Internal arcing fault              | 20 kA / 1 s                              |
| Qty of feeder                      | 3 feeders                                |
| <b>Protection</b>                  |  |
| LV surge protection                | AC type I+II                             |
| AC input protection                | Circuit breaker                          |
| Transformer protection             | Oil-temperature, oil-level, oil-pressure |
| Fire protection                    | Smoke detection, emergency lighting      |
| <b>General Data</b>                |  |
| Dimensions (W*H*D)                 | 6058*2896*2438 mm                        |
| Approximate weight                 | 24 T                                     |
| Operating temperature range        | -25 ~ +60°C                              |
| Operating altitude                 | 1000 m (standard)                        |
| Auxiliary power supply             | 5 kVA / 230 V (Optional: max. 40 kVA)    |
| UPS                                | 1 kVA 30 min (Optional: max. 2 kVA 2h)   |
| Degree of protection               | IP54                                     |
| Allowable relative humidity range  | 0-95%                                    |
| Communication                      | RS485, Ethernet, Optical fiber           |
| Compliance                         | IEC 60076, IEC 62271, IEC61439           |

## Utility-scale Plant Case Study



India  
2MW Solis-(100-110)K



Poland  
10MW Solis-125K-EHV-5G



China  
300MW  
Solis-(215-255)K-EHV-5G



China  
1GW Solis-(215-255)K-EHV-5G



Mexico  
20MW Solis-20K-HV

### Tidal-Flat 300MW Utility Scale Solar PV Plant

After the project is put into operation, the generating capacity is estimated to be 400,000,000 kWh/ year and delivers a reduction of 350,000 tons of CO<sub>2</sub>, 12,000 tons of SO<sub>2</sub>, and 110,000 tons of Carbon dust. Solis commercial scale string inverters boast an abundance of technological features which can adapt to a variety of environments. We look forward to seeing more applications utilizing Solis inverters. We are committed to our mission - Developing Technology to Power the World with Clean Energy.

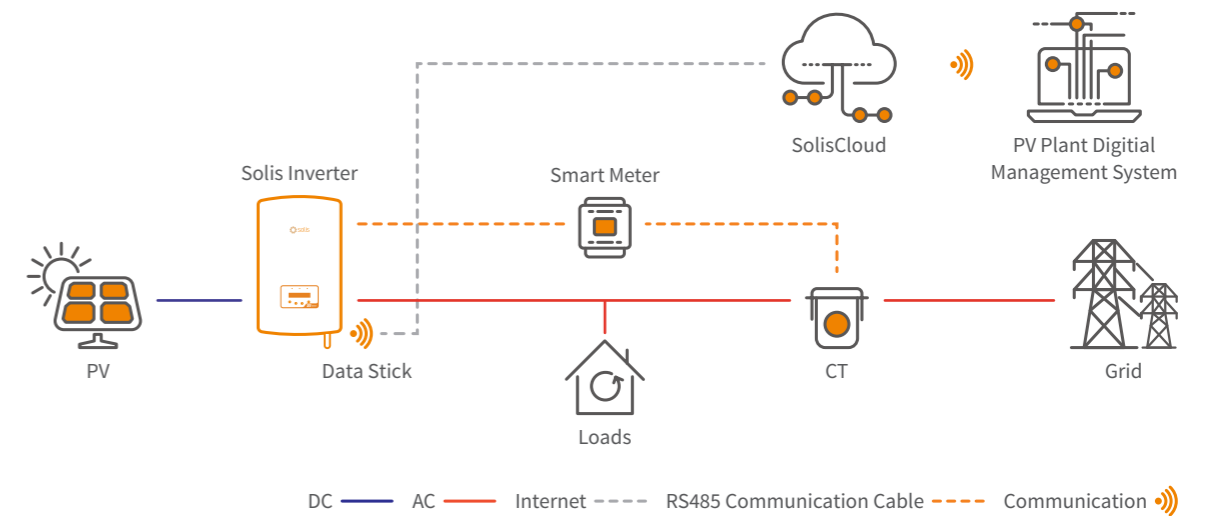
# Export Power Management Solutions



In some countries, local regulations limit the amount of PV power that can be exported to the grid or allow no export. Solis offers two export limitation solutions for single and multiple inverters system.

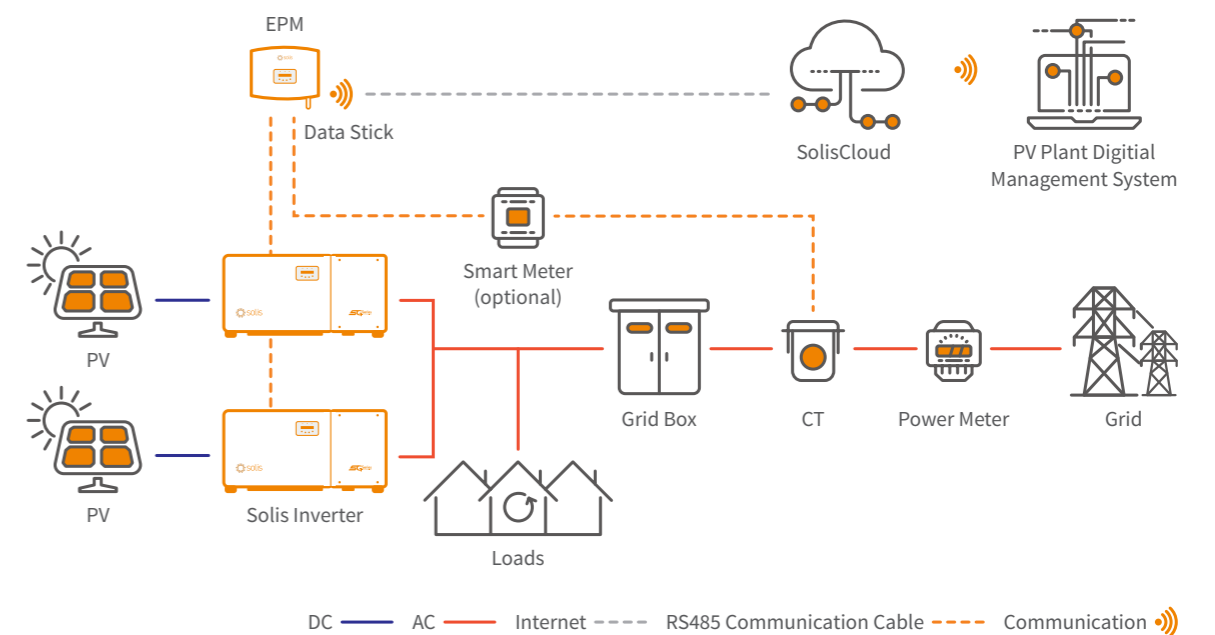
## Export Power Management Solutions - Single-inverter System

In a single-inverter system, the export limitation is integrated into the inverter firmware. Use a meter or a CT to measure the output of the system, then to adjust PV power production.



## Export Power Management Solution - Multi-inverter System

In a multi-inverter system, the export limitation is integrated into the EPM (Export Power Manager) firmware. The EPM will monitor and control the backflow power from the inverter to the grid thus providing export power control of inverters.



## Solis-EPM-5G

### Accessories - Solis Export Power Manager

#### Smart & strong

- Simultaneous control of 60 X Solis inverters
- Realizing reactive compensation of the system

#### Saving & high precision

- Simultaneously monitor the operating data of the 60 X Solis inverter, saving the cost of the monitoring system
- The control accuracy is up to 3%, which improves the system's spontaneous use rate

#### Friendly & compatible

- Supports simultaneous access of Solis inverters with different powers
- Monitor power generation and load consumption at all times

#### Models:

Solis-EPM1-5G

Solis-EPM3-5G

Solis-EPM3-5G-PRO



## DATASHEET

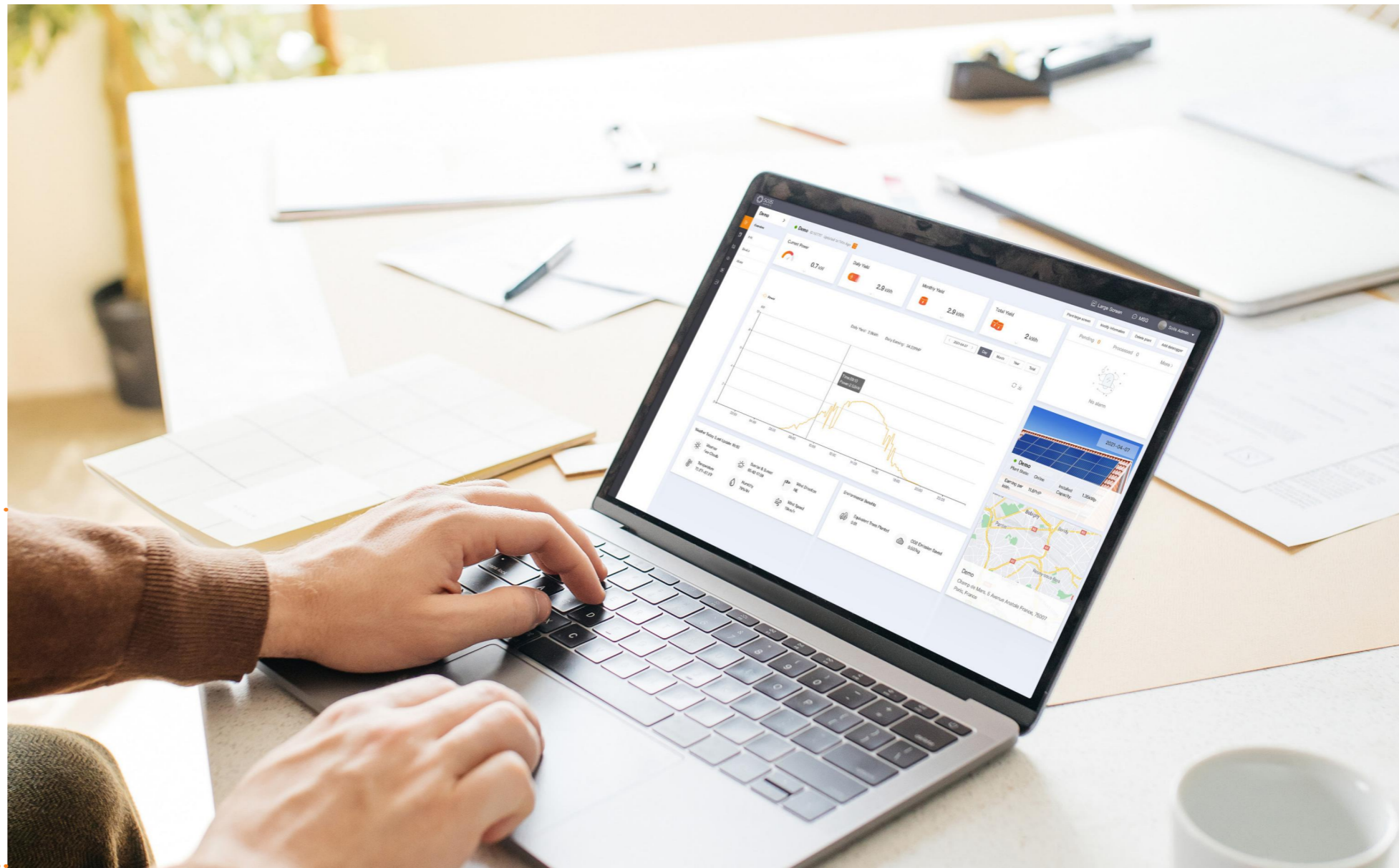
## Solis-EPM-5G

| Models                              | Solis-EPM1-5G                      | Solis-EPM3-5G         | Solis-EPM3-5G-PRO |    |                |          |          |
|-------------------------------------|------------------------------------|-----------------------|-------------------|----|----------------|----------|----------|
| <b>Input AC</b>                     |                                    |                       |                   |    |                |          |          |
| Rated voltage                       | 1/N/PE, 230 V                      | 3/N/PE, 230 V / 400 V |                   |    |                |          |          |
| Input voltage range                 | 100 ~ 300 V (L-N)                  | 175 ~ 520 V (L-L)     |                   |    |                |          |          |
| Input frequency range               | 45~65 Hz                           |                       |                   |    |                |          |          |
| <b>Communication</b>                |                                    |                       |                   |    |                |          |          |
| Inverter communication              | Modbus                             |                       |                   |    |                |          |          |
| Communication with inverter         | RS485 (Wired)                      |                       |                   |    |                |          |          |
| Max. communication inverter numbers | 10                                 | 60 <sup>(1)</sup>     |                   |    |                |          |          |
| Max. communication distance         | 1000 m                             |                       |                   |    |                |          |          |
| Monitoring                          | WiFi/4G/LAN Stick (Optional)       |                       |                   |    |                |          |          |
| <b>General Data</b>                 |                                    |                       |                   |    |                |          |          |
| Ambient temperature                 | -25 ~ +60°C                        |                       |                   |    |                |          |          |
| Relative humidity                   | 5%~95%                             |                       |                   |    |                |          |          |
| Ingress protection                  | IP65                               |                       |                   |    |                |          |          |
| Self-consumption                    | <5 W                               |                       |                   |    |                |          |          |
| Dimensions (W*H*D)                  | 364*276*114 mm                     |                       |                   |    |                |          |          |
| Weight                              | 2.1 kg (without CT, Meter)         |                       |                   |    |                |          |          |
| AC connection                       | Quick connection terminal          |                       |                   |    |                |          |          |
| Display                             | LCD                                |                       |                   |    |                |          |          |
| Smart meter                         | No                                 | Yes                   |                   |    |                |          |          |
| CT connection                       | Plug terminal                      |                       |                   |    |                |          |          |
| CT specification                    | Optional (Secondary current is 5A) |                       |                   |    |                |          |          |
| <b>Features</b>                     |                                    |                       |                   |    |                |          |          |
| Failsafe function                   | Yes                                |                       |                   |    |                |          |          |
| Remote upgraded                     | Yes                                |                       |                   |    |                |          |          |
| PF adjustment                       | No                                 | Yes                   |                   |    |                |          |          |
| Control time                        | 5 s                                |                       |                   |    |                |          |          |
| <b>CT specification</b>             |                                    |                       |                   |    |                |          |          |
|                                     | Specification                      | Dimensions (mm)       |                   |    | Hole size (mm) |          | Ratio    |
|                                     |                                    | W                     | H                 | D  | a              | e        |          |
|                                     | CT-30×20-100 A                     | 90                    | 114               | 40 | 22             | 32       | 100:5 A  |
|                                     | CT-60×40-300 A                     | 114                   | 140               | 36 | 42             | 62       | 300:5 A  |
|                                     | CT-80×40-600 A                     | 122                   | 162               | 40 | 42             | 82       | 600:5 A  |
|                                     | CT-80×40-1000 A                    | 122                   | 162               | 40 | 42             | 82       | 1000:5 A |
|                                     | CT-160×80-2000 A                   | 184                   | 254               | 52 | 82             | 162      | 2000:5 A |
| CT-160×80-3000 A                    | 184                                | 254                   | 52                | 82 | 162            | 3000:5 A |          |

(1) The installed capacity of the inverter cannot exceed 5MW.

# SolisCloud: Intelligent Solar Energy System Monitoring

The SolisCloud intelligent monitoring system includes hardware and software products and is a comprehensive energy management solution. Hardware products, including data stick, data box, EPM and PLC, etc; transmit to SolisCloud online energy management platform. Real-time monitoring, visualized management and remote O & M of residential, C&I and utility scale solar PV plants.



## S2-WL-ST



S2-WL-ST (4 Pin)

S2-WL-ST (USB)

## S3-GPRS/WiFi-ST



S3-GPRS-ST

S3-WiFi-ST

## S4-WiFi-ST



S4-WiFi-ST

## S1-W4G-ST



S1-W4G-ST (4 Pin)

S1-W4G-ST (USB)

## Solis-Link: RF



RF-Stick

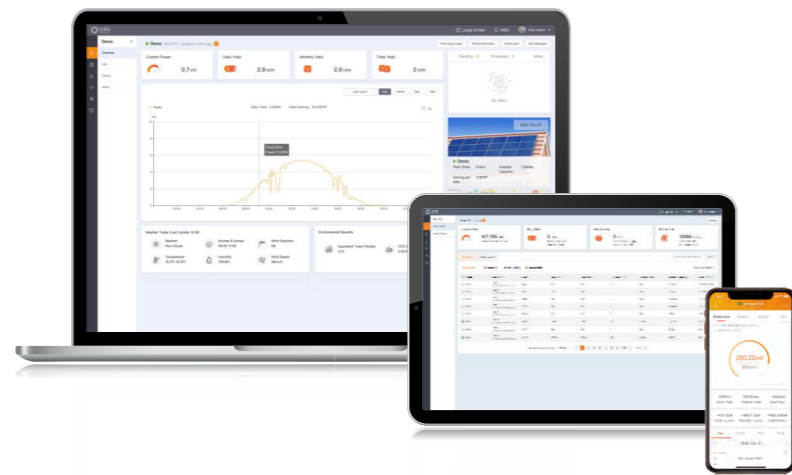
RF Gateway

## SolisCloud

### New generation Solis PV monitoring platform

SolisCloud is the new generation of intelligent PV system monitoring. This new monitoring platform will empower you like never before. You will have full control of your system whenever and wherever you are. You will benefit from upgraded accurate fault alarm messaging that is adjustable to notify you within hours that fit meet your needs.

For simple O&M the new platform features a full size display of all your installations with real-time data. You will have an intelligent alarm system that gives recommendations to quickly repair your field faults. In depth analysis tools allow you to understand the overall health of your system. IV curve scanning can be done easily and quickly on your whole system. A live power flow display gives visibility of both standard solar systems as well as storage systems. Most importantly you will have complete control of your systems and be able to monitor and adapt anything when and how you want.



#### Advanced Cloud Platform

- Connecting with multiple types of devices seamlessly: Inverters, export power managers, weather stations, etc.

#### Efficient O & M

- Smart I-V curve scan, system health report, string-level fault finding

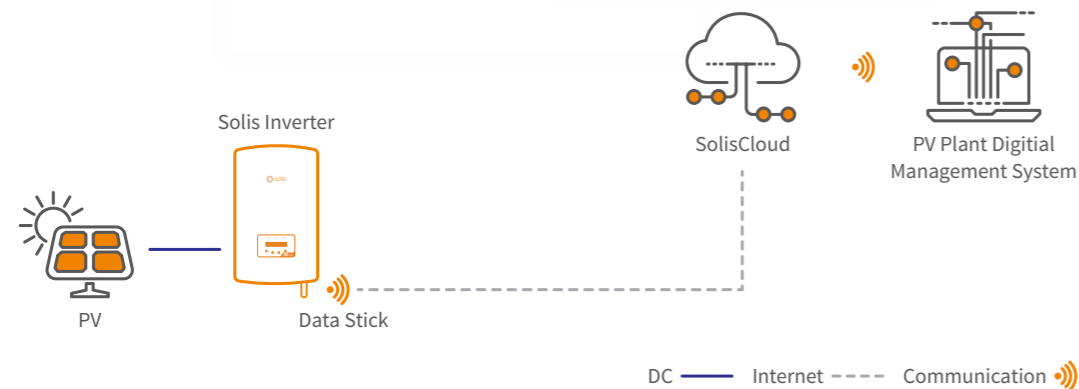
#### Multiple Plant Management

- Manage multiple types of systems across residential, commercial and utility scale plants. Enables multiple team management across different sectors

#### Multiple Plant Management

- Clear and concise display of system performance and benefits including carbon emissions saved and equivalent trees planted as well as showing system yield & earnings

#### Intelligent Monitoring Solution - SolisCloud



### Download the App



#### Accessories available:

- S2-WL-ST
- S3-GPRS/WiFi-ST
- S4-WiFi-ST
- S1-W4G-ST
- Solis-Link: RF
- Solis PLC CCO

Search for "Solis"



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The Full Series of Operation Videos Will be available on **Youtube**

## S2-WL-ST

### Accessories - Solis Data Logging Stick

Use RS485 communication method to connect the inverters, up to 10 inverters can be connected at the same time. Data communication with the monitoring system through wireless WiFi network or LAN, which can realize remote control and monitoring. The network transmits intuitive data, which is convenient for customers to monitor anytime and anywhere.

#### Features:

- Support WiFi and LAN communication
- Status indicator, easy to display working status
- RESET button, one key to send data, convenient debugging
- Plug and play, quick installation
- Fault alarm, real-time monitoring
- Support Bluetooth nearby connection and debugging
- One-key assignment of inverter address, efficient and labor-saving

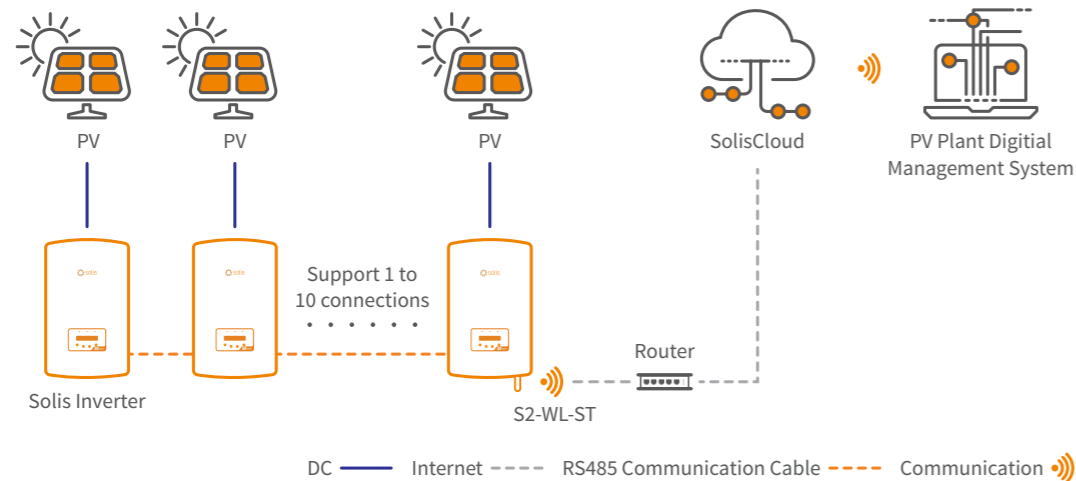


S2-WL-ST (4 Pin)



S2-WL-ST (USB)

#### Intelligent Monitoring Solution - S2-WL-ST



## DATASHEET

## S2-WL-ST

| Models                                       | S2-WL-ST (4 Pin)                       | S2-WL-ST (USB) |
|--|--|----------------|
| <b>Communication</b>                         |  |                |
| Supported device type                        | Solis inverter                         |                |
| Number of connected inverters <sup>(1)</sup> | ≤10                                    |                |
| Data collection intervals                    | 5 minutes                              |                |
| Status indicator                             | LED × 3                                |                |
| Communication interface                      | 4 Pin                                  | USB            |
| Wireless communication                       | 802.11b/g/n (2.4G—2.483G)              |                |
| Configuration method                         | APP/WEB                                |                |
| <b>Electrical</b>                            |  |                |
| Operating voltage                            | DC 5 V (+/-5%)                         |                |
| Operating power consumption                  | ≤5 W                                   |                |
| <b>Environment</b>                           |  |                |
| Operating temperature                        | -30 ~ +65°C                            |                |
| Operating humidity                           | 5%-95%, Relative humidity, no condensa |                |
| Storage temperature                          | -40 ~ +70°C                            |                |
| Storage humidity                             | < 40%                                  |                |
| Operating altitude                           | ≤4000 m                                |                |
| Protection degree                            | IP65                                   |                |
| <b>Mechanical</b>                            |  |                |
| Dimensions (L*W*H)                           | 125*34*49 mm                           | 112*34*49 mm   |
| Installation method                          | Insert+Screw                           | Insert+Lock    |
| Weight                                       | 103 g                                  | 89 g           |
| <b>Others</b>                                |  |                |
| Certification                                | CE, FCC                                |                |

(1) Connect the inverters by RS485 cables.

## S3-GPRS/WiFi-ST

### Accessories - Solis Data Logging Stick

Use RS485 communication method to connect the inverter, and data connection through wireless WiFi network or GPRS, which can realize remote control and monitoring. The network transmits intuitive data, which is convenient for customers to monitor at any time and place.

#### Features:

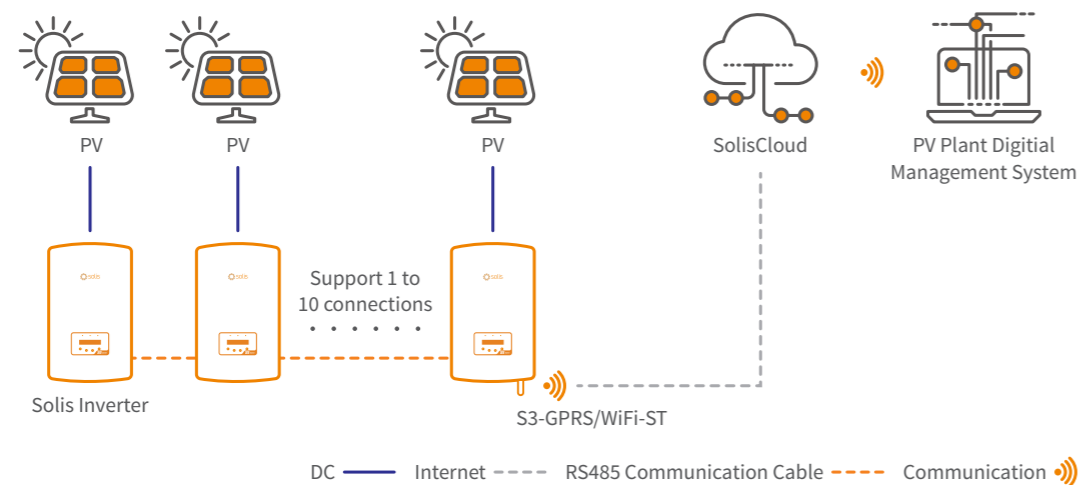
- Fault alarm, real-time monitoring
- Status indicator, easy to display working status
- Plug and play, convenient and fast
- RESET button, one key to send data, convenient debugging



S3-GPRS-ST

S3-WiFi-ST

#### Intelligent Monitoring Solution - S3-GPRS/WiFi-ST



## DATASHEET

## S3-GPRS/WiFi-ST

| Models                                       | S3-GPRS-ST                             | S3-WiFi-ST                |
|--|--|---------------------------|
| <b>Communication</b>                         |  |                           |
| Supported device type                        | Solis inverter                         |                           |
| Number of connected inverters <sup>(1)</sup> | ≤10                                    |                           |
| Data collection intervals                    | 5 minutes                              |                           |
| Status indicator                             | LED × 3                                |                           |
| Communication interface                      | 4 Pin                                  |                           |
| Wireless communication                       | 850/900/1800/1900 MHz                  | 802.11b/g/n (2.4G—2.483G) |
| Configuration method                         | APP/WEB                                |                           |
| <b>Electrical</b>                            |  |                           |
| Operating voltage                            | DC 5V(+/-5%)                           |                           |
| Operating power consumption                  | ≤5 W                                   |                           |
| <b>Environment</b>                           |  |                           |
| Operating temperature                        | -30 ~ +65°C                            |                           |
| Operating humidity                           | 5%-95%, relative humidity, no condensa |                           |
| Storage temperature                          | -40 ~ +70°C                            |                           |
| Storage humidity                             | < 40%                                  |                           |
| Operating altitude                           | ≤4000 m                                |                           |
| Protection degree                            | IP65                                   |                           |
| <b>Mechanical</b>                            |  |                           |
| Dimensions (L*W*H)                           | 133*45*41 mm                           | 128*50*34 mm              |
| Installation method                          | Insert+Screw                           |                           |
| Weight                                       | 84 g                                   | 80 g                      |
| <b>Others</b>                                |  |                           |
| Certification                                | CE                                     | CE, FCC                   |

(1) Connect the inverters by RS485 cables.

## S4-WiFi-ST

### Accessories - Solis Data Logging Stick

Use RS485 communication method to connect the inverters, up to 10 inverters can be connected at the same time. Data communication with the monitoring system through wireless WiFi network, which can realize remote control and monitoring. The network transmits intuitive data, which is convenient for customers to monitor anytime and anywhere.

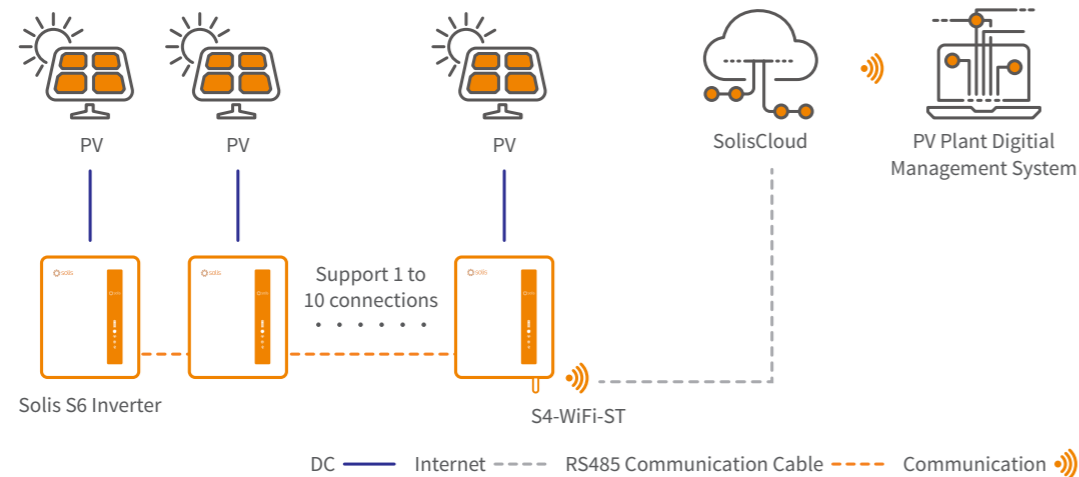
#### Features:

- Fault alarm, real-time monitoring
- Plug and play, convenient and fast
- Status indicator, easy to display working status
- RESET button, one key to send data, convenient debugging



S4-WiFi-ST

#### Intelligent Monitoring Solution - S4-WiFi-ST



## DATASHEET

## S4-WiFi-ST

| Models                                       | S4-WiFi-ST                             |
|--|--|
| <b>Communication</b>                         |  |
| Supported device type                        | Solis inverter                         |
| Number of connected inverters <sup>(1)</sup> | ≤10                                    |
| Data collection intervals                    | 5 minutes                              |
| Status indicator                             | LED × 3                                |
| Communication interface                      | USB                                    |
| Wireless communication                       | 802.11b/g/n (2.4G—2.483G)              |
| Configuration method                         | APP/WEB                                |
| <b>Electrical</b>                            |  |
| Operating voltage                            | DC 5V(+/-5%)                           |
| Operating power consumption                  | ≤5 W                                   |
| <b>Environment</b>                           |  |
| Operating temperature                        | -30 ~ +65°C                            |
| Operating humidity                           | 5%-95%, relative humidity, no condensa |
| Storage temperature                          | -40 ~ +70°C                            |
| Storage humidity                             | < 40%                                  |
| Operating altitude                           | ≤4000 m                                |
| Protection degree                            | IP65                                   |
| <b>Mechanical</b>                            |  |
| Dimensions (L*W*H)                           | 128*50*34 mm                           |
| Installation method                          | Insert+Screw                           |
| Weight                                       | 84 g                                   |
| <b>Others</b>                                |  |
| Certification                                | CE, FCC                                |

(1) Connect the inverters by RS485 cables.

## S1-W4G-ST

### Accessories - Solis Data Logging Stick

Use RS485 communication method to connect the inverters, up to 10 inverters can be connected at the same time. Data communication with the monitoring system through wireless WiFi network or 4G, which can realize remote control and monitoring. The network transmits intuitive data, which is convenient for customers to monitor anytime and anywhere.

#### Features:

- Support WiFi and 4G communication
- Status indicator, easy to display working status
- RESET button, one key to send data, convenient debugging
- Fault alarm, real-time monitoring
- Support Bluetooth nearby connection and debugging
- One-key assignment of inverter address, efficient and labor-saving

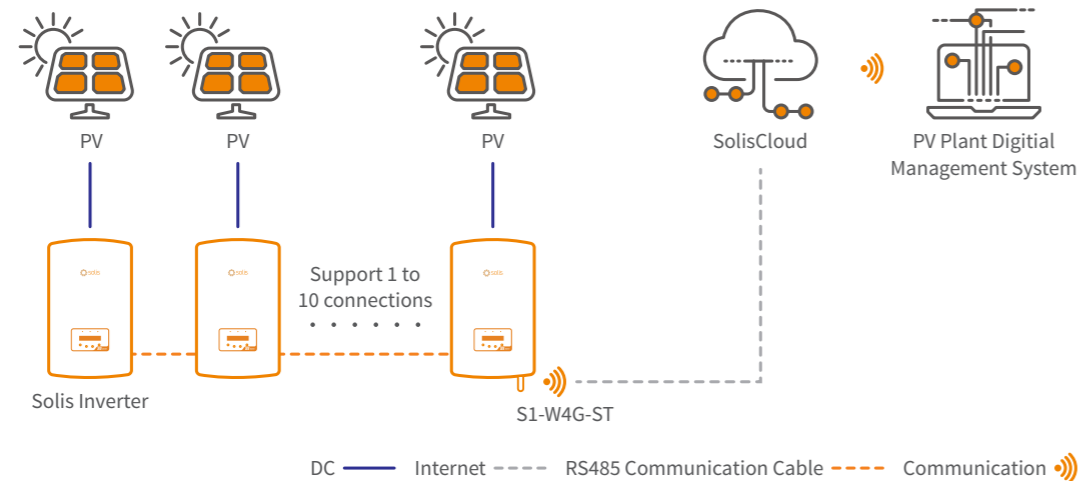


S1-W4G-ST (4 Pin)



S1-W4G-ST (USB)

#### Intelligent Monitoring Solution - S1-W4G-ST



## DATASHEET

## S1-W4G-ST

| Models                                       | S1-W4G-ST (4 Pin)  | S1-W4G-ST (USB) |
|--|--|-----------------|
| <b>Communication</b>                         |  |                 |
| Supported device type                        | Solis inverter   |                 |
| Number of connected inverters <sup>(1)</sup> | ≤10  |                 |
| Data collection intervals                    | 5 minutes  |                 |
| Status indicator                             | LED × 3  |                 |
| Communication interface                      | 4 Pin  | USB             |
| Wireless communication                       | 802.11b/g/n (2.4G—2.483G)<br>GSM/GPRS: 850/900/1800/1900 MHz |                 |
| Configuration method                         | APP/WEB  |                 |
| <b>Electrical</b>                            |  |                 |
| Operating voltage                            | DC 5 V (+/-5%)   |                 |
| Operating power consumption                  | ≤5 W   |                 |
| <b>Environment</b>                           |  |                 |
| Operating temperature                        | -30 ~ +65°C  |                 |
| Operating humidity                           | 5%-95%, Relative humidity, no condensa                       |                 |
| Storage temperature                          | -40 ~ +70°C  |                 |
| Storage humidity                             | < 40%  |                 |
| Operating altitude                           | ≤4000 m  |                 |
| Protection degree                            | IP65   |                 |
| <b>Mechanical</b>                            |  |                 |
| Dimensions (L*W*H)                           | 128*50*34 mm   | 115*50*34 mm    |
| Installation method                          | Insert+Screw   | Insert+Lock     |
| Weight                                       | 79 g   | 65 g            |
| <b>Others</b>                                |  |                 |
| Certification                                | CE, FCC  |                 |

(1) Connect the inverters by RS485 cables.

## Solis-Link: RF

### Accessories - Solis Data Logging Device

Solis box type (gateway) + stick type (terminal) monitoring data collector, the terminal uses RS485 communication to connect to the inverter, the gateway uses wired Ethernet to connect to the home router, and the gateway and terminal are connected through RF data to realize automatic networking. The equipment is connected to the gateway automatically, free of wiring and wireless network configuration; it aims to realize a stable and intelligent operation and maintenance management plan for users.

#### Features:

- Plug and play, easy to operate
- No Wi-Fi configuration required, RF intelligent connection
- Stable network connection, real-time data transmission
- Remote monitoring, allowing real-time monitoring of mobile APP and Web side

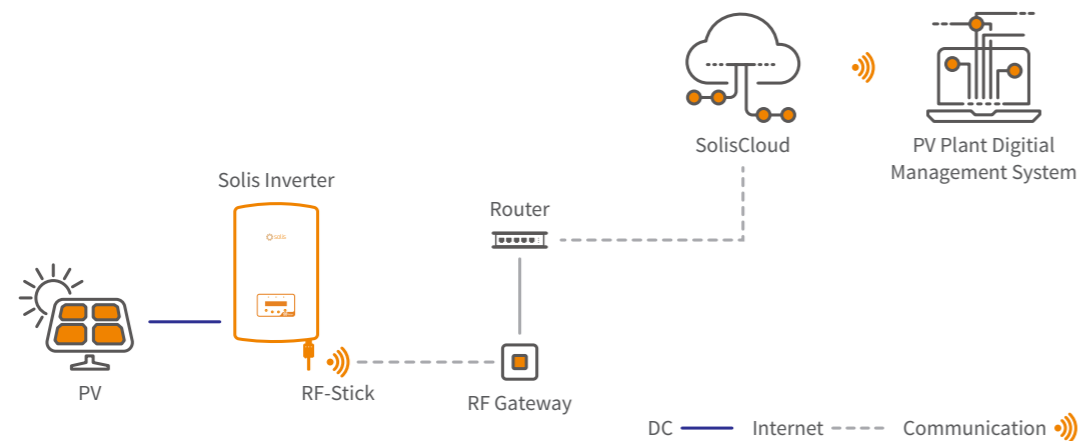


RF-Stick



RF Gateway

### Intelligent Monitoring Solution - Link: RF



## DATASHEET

## Solis-Link: RF

| Models                         | RF-Stick  | RF-Gateway  |
|--------------------------------|---|---|
| <b>Wireless parameters</b>     |   |   |
| Demodulation                   |   | FSK   |
| Data rate                      |   | 9.6 kbps  |
| Transmitting power             |   | +20 dBm   |
| Transmitting frequency offset  |   | 20 kHz  |
| Transmission channel bandwidth |   | <8 kHz  |
| Receiving channel bandwidth    |   | 200 kHz   |
| <b>Hardware parameters</b>     |   |   |
| Data interface                 | RS 485  | Adaptive 10 / 100 Mbps  |
| Operating voltage              | DC 5 V ~ DC 12 V  | DC 5.0 V (+/-5%)  |
| Max. working voltage           | 15 V  | 12 V  |
| Operating power consumption    | 1.5 W   |   |
| Indicator light                | System running Status--RUN Light<br>Inverter Connection Status--COM Light<br>RF Connection Status--RF Light | System running Status--RUN<br>Server Connection Status--SER<br>RF Connection Status--RF |
| Operating humidity             | 10%-90%, relative humidity, no condensa   |   |
| Storage temperature            | -45 ~ +90°C   |   |
| Storage humidity               | < 40%   |   |
| <b>Software parameters</b>     |   |   |
| Number of connected inverters  | 1   | /   |
| Serial communication rate      | 9600 bps (adjustable:1200-57600 bps)  | /   |
| Data collection intervals      | 5 minutes   | /   |
| Link requirement               | /   | CAT5 shielded network cable length <50 m  |
| <b>Mechanical</b>              |   |   |
| Dimensions (L*W*H)             | 47*41*160 mm  | 90*23*90 mm   |
| Weight                         | 130 g   | 80 g  |
| Protection degree              | IP 65   | IP 21   |
| <b>Others</b>                  |   |   |
| Certification                  | CE  |   |

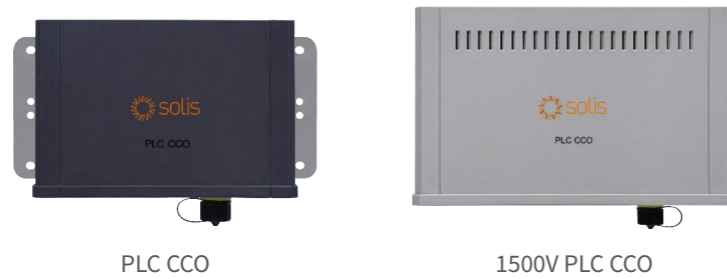
## Solis PLC CCO

### Accessories - Solis Data Logging Stick

Solis PLC CCO (CCO: Central Controller) is applied in PV systems to achieve power line communication. Power Line Communication is transmission of data over the AC Wires of the system.

#### Features:

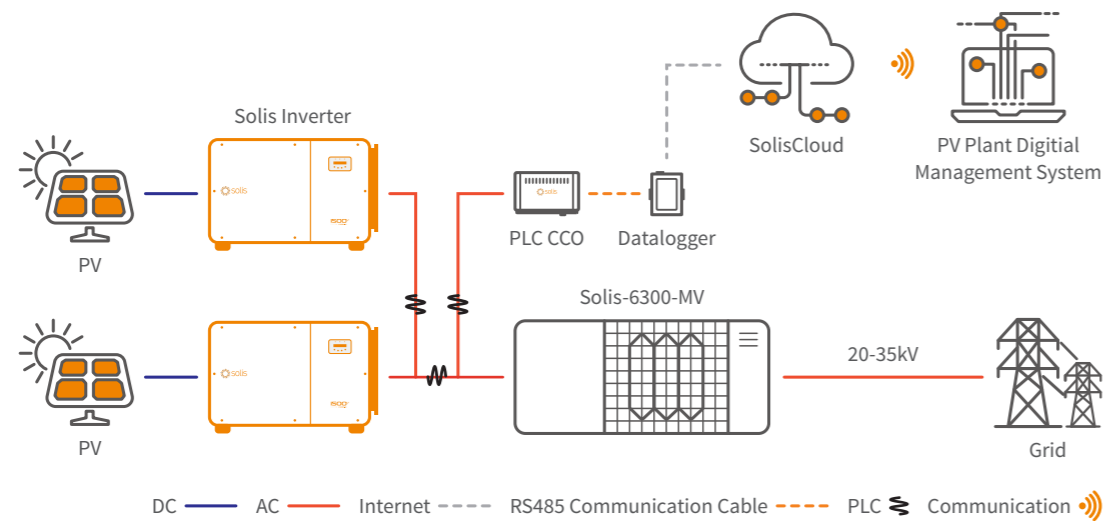
- No need to lay communication cables, reducing construction costs and maintenance costs
- Strong anti-interference ability
- Support multi-terminal networking
- Stable network connection, real-time data transmission



PLC CCO

1500V PLC CCO

### Utility Scale Solar PV Solution



## DATASHEET

## Solis PLC CCO

| Models                             | PLC CCO                                       | 1500V PLC CCO                 |
|------------------------------------|---|-------------------------------|
| <b>Electrical</b>                  |   |                               |
| Power supply                       | 100 V ~ 240 V AC, 50 Hz / 60 Hz               |                               |
| Power consumption                  | <5 W  |                               |
| AC port line voltage range         | 0 ~ 621 V AC                                  | 0 ~ 920 V AC                  |
| <b>Environment</b>                 |   |                               |
| Operating temperature range        | -13°F to 158°F (-25 ~ +70°C)                  |                               |
| Relative humidity (non-condensing) | 5% ~ 95%                                      |                               |
| Max. operating altitude            | 4000 m  |                               |
| <b>Communication</b>               |   |                               |
| Max. number of connected inverters | 80  | 60                            |
| Max. transmission rate             | 9600 bit/s                                    |                               |
| <b>Mechanical</b>                  |   |                               |
| Dimensions (L*W*H)                 | 7.1*4.7*1.8 in (180*120*45 mm)                | 10*6.5*1.8 in (255*165*45 mm) |
| Weight                             | 0.72 lb (325 g)                               | 1.1 lbs (485 g)               |
| Protection degree                  | IP20  |                               |
| Installation method                | Hanging installation or Din Rail installation | Hanging installation          |

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