



GINLONG

No. 57 Jintong Road,  
Binhai (Sea front) Industrial Park,  
Xiangshan, Ningbo, Zhejiang, 315712, P.R.China  
Tel: (+86) 574 6578 1806 Fax: (+86) 574 6578 1606  
E-Mail: info@Ginlong.com

13th June 2021

To whom it may concern

**letter of intent**

Our company, Ginlong Technologies Co., Ltd, with headquarters in Zhejiang, China, are pioneers in PV inverters. Although Ginlong Technologies has become one of the world's most competitive manufacturers of PV inverters and maintains a strong investment in R&D and continual improvements in production methods, customer service remains a primary focus and a key to the company's success

Ginlong hereby confirm that Gunda Power Pvt Ltd, with its registered office in 123/10, Pannipitiya Road, Battaramulla, Sri Lanka, is one of our customers and we hereby authorize them to sale our products in Sri Lanka

Yours sincerely

Ginlong Technologies Co., Ltd

吉隆科技股份有限公司  
GINLONG TECHNOLOGIES CO., LTD.



## SOLIS INVERTER WARRANTY

Ginlong(Ningbo) Technologies Co., Ltd.

No. 57 Jintong Road, Binhai Industrial Park, Xiangshan, Ningbo, Zhejiang 315712, China  
Tel: (+86) 574 6578 1806 Email: sales@ginlong.com

Solis Inverter are manufactured by Ginlong (Ningbo) Technologies Co., Ltd. (The Company) (referred to as Ginlong) provides the following Warranty to the purchaser (The Customer) of the Inverter (The Goods). (The Customer is deemed to be the owner of the installed Goods at first sale.

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### 1. Warranty Terms

The Company warrants all Goods to be free from defects in material or workmanship under normal use and service for a period of 5 years from the date of sale to the Customer.

The Warranty covers the cost of repairs or replacement parts. The Goods must be returned to the Company for inspection.

The company may repair or replace faulty components at its discretion.

This warranty extends the Customer's statutory rights and cannot be construed so as to diminish such statutory rights.

### 2. Warranty Extension

The purchaser may apply for a warranty extension within 12 months of purchase by providing the serial number of the unit along with proof of purchase. An extended warranty can be purchased for a further 5 years (Total 10 years).

### 3. Warranty Limitations

The Warranty is valid only for Goods purchased either directly from the Company or from an authorized reseller of the company.

The Warranty is not transferable and applies to brand new Goods only.

Defective parts replaced under Warranty become the property of the Company.

The Warranty does not cover:

- (a) Access or transport costs;
- (b) Consequential damages including but not limited to loss of revenue;
- (c) Claims by third parties other than the Customer;
- (d) Defects of installation. (Except where the installation is performed by the Company);
- (e) Goods damaged as a consequence of incorrect installation. (Except where the installation is performed by the Company);
- (f) Items ancillary to installation not supplied by the Company;
- (g) Duties, import/export fees or costs and other general administrative costs;
- (h) Damage to Goods caused by misuse, improper handling or unauthorized modification;
- (i) Loss or damage occurring whilst in transit;
- (j) Accidental or willful damage;
- (k) Any Goods described in a quotation or delivery note as 'ex-display' or 'reconditioned'. (A separate Warranty extension may have been issued to cover such Goods.)

Labour, travel and delivery (to and from customer) will be charged if goods returned found to be not faulty following a warranty claim.

Any part or component that shall have been subject to abuse, misuse, negligence, accident or natural disaster, including but not limited to lightning, hail storm, tornado, acts neither foreseen nor controlled and commonly defined as force majeure.

### 4. Warranty Claims Procedure

To make a warranty claim the following information needs to be provided:

- Completed RTM Inspection Form
- Product Model (ie. Solis 1.5kW) and Product Serial Number (ie. A1110011)
- Copy of the invoice for the inverter
- Copy of the installation report and installation certificate

The authorised reseller will liaise with the Company regarding repair or replacement. The cost of repair or replacement will be borne by the Company provided the Warranty has been validated and the Warranty period has not expired.

Where repairs must be effected at the Company's headquarters, the Company will endeavor to minimize the down time for the Goods.

# Mini 4G

700W  
-  
3600W

## Solis Mini 4G Series Inverter

- ▶ MINI series - Extended to 3600W
- ▶ High frequency switching technology - Smaller, smarter
- ▶ DRM integrated, fully comply with AS4777.2:2015
- ▶ Compact and lightweight
- ▶ 50V-500V input voltage range – ultra low startup
- ▶ Over 97.5% Max. efficiency
- ▶ Precise MPPT algorithm
- ▶ Intergrated Export Power Manager(EPM)
- ▶ Rs485, WiFi/LAN/GPRS (optional) interface
- ▶ WiFi monitoring available-iphone and android app available
- ▶ 5 years standard warranty, 20 years optional upgrade



### Model:

120V Solis-mini-1000-4G -LV

220V Solis-mini-700-4G Solis-mini-1000-4G Solis-mini-1500-4G  
Solis-mini-2000-4G Solis-mini-2500-4G Solis-mini-3000-4G  
Solis-mini-3600-4G

### Features:

|                                    |                                           |                                          |                                |                                                                                                                             |             |
|------------------------------------|-------------------------------------------|------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>EPM</b><br>Export power manager | <b>HF SWITCH</b><br>High switch frequency | <b>WiFi/GPRS</b><br>Real time monitoring | <b>60V</b><br>Start-up Voltage | <br>Available on the Android App Store | <b>IP65</b> |
|------------------------------------|-------------------------------------------|------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------|

# Datasheet

| Model                                | Solis-mini-1000-4G-LV                                           | Solis-mini-700-4G | Solis-mini-1000-4G | Solis-mini-1500-4G | Solis-mini-2000-4G | Solis-mini-2500-4G | Solis-mini-3000-4G | Solis-mini-3600-4G |
|--------------------------------------|-----------------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Energy Source                        | PV                                                              |                   |                    |                    |                    |                    |                    |                    |
| Input Side(DC)                       |                                                                 |                   |                    |                    |                    |                    |                    |                    |
| Max. DC input power(kW)              | 1.2                                                             | 0.9               | 1.2                | 1.8                | 2.3                | 3                  | 3.5                | 4                  |
| Max. DC input voltage(V)             | 600                                                             |                   |                    |                    |                    |                    |                    |                    |
| Start-up voltage(V)                  | 90                                                              | 60                |                    |                    | 90                 |                    |                    |                    |
| MPPT voltage range(V)                | 50-500                                                          |                   |                    |                    | 80-500             |                    |                    |                    |
| Max. input current per MPPT(A)       | 11A                                                             |                   |                    |                    |                    |                    |                    | 19A                |
| MPPT number/Max input strings number | 1/1                                                             |                   |                    |                    |                    |                    |                    | 1/2                |
| Output Side (AC)                     |                                                                 |                   |                    |                    |                    |                    |                    |                    |
| Rated output power(kW)               | 1                                                               | 0.7               | 1                  | 1.5                | 2                  | 2.5                | 3                  | 3.6                |
| Max. apparent output power(kVA)      | 1.1                                                             | 0.8               | 1.1                | 1.7                | 2.2                | 2.8                | 3.3                | 3.6                |
| Max. output power(kW)                | 1.1                                                             | 0.8               | 1.1                | 1.7                | 2.2                | 2.8                | 3.3                | 3.6                |
| Rated grid voltage(V <sub>LL</sub> ) | 101/120/127                                                     | 220/230           |                    |                    |                    |                    |                    |                    |
| Rated grid frequency(Hz)             | 50/60                                                           |                   |                    |                    |                    |                    |                    |                    |
| Operation phase                      | Single                                                          |                   |                    |                    |                    |                    |                    |                    |
| Rated grid output current(A)         | 8.3                                                             | 3.2/3.0           | 4.5/4.3            | 6.8/6.5            | 9.1/8.7            | 11.4/10.9          | 13.6/13            | 16                 |
| Max. output current(A)               | 9.2                                                             | 4.4               | 5.2                | 8.1                | 10.5               | 13.3               | 15.7               | 16                 |
| Power Factor (at rated output power) | 0.8 leading ... 0.8 lagging                                     |                   |                    |                    |                    |                    |                    |                    |
| THDi                                 | <3%                                                             |                   |                    |                    |                    |                    |                    |                    |
| DC injection current(mA)             | <0.5%I <sub>n</sub>                                             |                   |                    |                    |                    |                    |                    |                    |
| Grid frequency range(Hz)             | 47-52 or 57-62                                                  |                   |                    |                    |                    |                    |                    |                    |
| Efficiency                           |                                                                 |                   |                    |                    |                    |                    |                    |                    |
| Max.efficiency                       | 97.2%                                                           |                   |                    |                    |                    | 97.5%              |                    |                    |
| EU efficiency                        | 96.5%                                                           |                   |                    |                    |                    | 96.8%              |                    |                    |
| MPPT efficiency                      | >99.5%                                                          |                   |                    |                    |                    |                    |                    |                    |
| Protection                           |                                                                 |                   |                    |                    |                    |                    |                    |                    |
| DC reverse-polarity protection       | Yes                                                             |                   |                    |                    |                    |                    |                    |                    |
| Short circuit protection             | Yes                                                             |                   |                    |                    |                    |                    |                    |                    |
| Output over current protection       | Yes                                                             |                   |                    |                    |                    |                    |                    |                    |
| Output over voltage protection       | Yes                                                             |                   |                    |                    |                    |                    |                    |                    |
| Insulation resistance monitoring     | Yes                                                             |                   |                    |                    |                    |                    |                    |                    |
| Residual current detection           | Yes                                                             |                   |                    |                    |                    |                    |                    |                    |
| Surge protection                     | Yes                                                             |                   |                    |                    |                    |                    |                    |                    |
| Islanding protection                 | Yes                                                             |                   |                    |                    |                    |                    |                    |                    |
| Temperature protection               | Yes                                                             |                   |                    |                    |                    |                    |                    |                    |
| Integrated DC switch                 | Optional                                                        |                   |                    |                    |                    |                    |                    |                    |
| General Data                         |                                                                 |                   |                    |                    |                    |                    |                    |                    |
| Dimensions(mm)                       | 310W*373H*160D                                                  |                   |                    |                    |                    |                    |                    |                    |
| Weight(kg)                           | 8.5                                                             |                   |                    |                    |                    | 8.8                |                    |                    |
| Topology                             | Transformerless                                                 |                   |                    |                    |                    |                    |                    |                    |
| Self consumption (night)             | <1W(Night)                                                      |                   |                    |                    |                    |                    |                    |                    |
| Operating ambient temperature range  | -25~60℃                                                         |                   |                    |                    |                    |                    |                    |                    |
| Ingress protection                   | IP65                                                            |                   |                    |                    |                    |                    |                    |                    |
| Noise emission{typical}              | <20 dBA                                                         |                   |                    |                    |                    |                    |                    |                    |
| Cooling concept                      | Natural convection                                              |                   |                    |                    |                    |                    |                    |                    |
| Max.operation altitude               | 4000m                                                           |                   |                    |                    |                    |                    |                    |                    |
| Designed lifetime                    | >20 years                                                       |                   |                    |                    |                    |                    |                    |                    |
| Grid connection standard             | EN50438, G83/2, AS4777.2:2015, VDE0126-1-1, IEC61727, VDE N4105 |                   |                    |                    |                    |                    |                    |                    |
| Relative humidity                    | 0~100%                                                          |                   |                    |                    |                    |                    |                    |                    |
| Safety/EMC standard                  | IEC62109-1/-2, NB/T 32004,EN61000-6-1, EN61000-6-3              |                   |                    |                    |                    |                    |                    |                    |
| Features                             |                                                                 |                   |                    |                    |                    |                    |                    |                    |
| DC connection                        | MC-4 mateable                                                   |                   |                    |                    |                    |                    |                    |                    |
| AC connection                        | IP67 rated plug                                                 |                   |                    |                    |                    |                    |                    |                    |
| Display                              | LCD,2×20 Z.                                                     |                   |                    |                    |                    |                    |                    |                    |
| Communication connections            | 4 pins RS485 connector                                          |                   |                    |                    |                    |                    |                    |                    |
| Warranty                             | 5 years standard (extend to 20 years)                           |                   |                    |                    |                    |                    |                    |                    |

TÜV Rheinland (China) Ltd.  
Member of TÜV Rheinland Group



Ningbo Ginlong technologies Co.,  
Ltd.  
Zhang Kun

Date : 18.05.2017  
Our ref. : DJW 01  
Your ref.: 52109827

No.57 Jintong Road, Binhai,  
(seafont)  
industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

Ref : R TÜV-Mark Approval

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : R 50379026 0001  
Report No. : 50081618 001

Dear Zhang Kun,

The above specified equipment has been tested and found to be in  
accordance with the relevant requirements.

Please find enclosed your certificate as specified above.

If cancellation of the certificate is submitted by 15 November in a  
given year, no fee will be charged for the following year.

The certificate is issued with the reservation that the license holder  
applies all information required in § 6 of the ProdSG related to name  
and address of the manufacturer or his authorized representative /  
importer, including their respective contact addresses on the product  
prior to marketing of the product in the European Economic Area.

With kind regards,

Certification Body

  
Weichun Li

Enclosure

证书的详细资料请登陆 [www.certipedia.com](http://www.certipedia.com) 查询, 或拨打我司客服热线 800 880 3888 / 400 880 1908 咨询

TÜV Rheinland (China) Ltd.  
莱茵检测认证服务 (中国) 有限公司

Unit 707, AVIC Bldg., No. 108,  
Central Road, East 2nd Ring  
Road, Chaoyang District,  
Beijing, 100022, P.R.China

北京朝阳区东三环中路乙108号  
艾迪克大厦707室  
邮编: 100022

Tel: (8610) 6566 6983  
Fax: (8610) 6596 8857  
e-mail: [info@bj.chn.tuv.com](mailto:info@bj.chn.tuv.com)  
Internet: <http://www.chn.tuv.com>

**Zertifikat****Certificate**

Zertifikat Nr. Certificate No.  
R 50379026

Blatt Sheet  
0001

Ihr Zeichen Client Reference  
52109827

Unser Zeichen Our Reference  
01-DJW-50081618 001

Ausstellungsdatum Date of Issue  
18.05.2017 (day/month/year)

**Genehmigungsinhaber License Holder**  
Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront)  
Industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

**Fertigungstätte Manufacturing Plant**  
Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront)  
Industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

**Prüfzeichen Test Mark**

Beurteilt gemäß  
Sicherheit  
Regelmäßige  
Produktions-  
Überwachung  
www.tuv.com  
ID 1415047345

**Geprüft nach Tested acc. to**

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

**Zertifiziertes Produkt (Geräteidentifikation)**  
Certified Product (Product Identification)

**Lizenzentgelte - Einheit**  
License Fee - Unit

**PV-Wechselrichter (Grid-connected PV Inverter)**

Type Designation : Solis-mini-700-4G  
Solis-mini-1000-4G

Vmax PV [Vd.c.] : 600  
Isc PV [Ad.c.] : 17.2  
MPP Voltage Range [Vd.c.] : 66-500/94-400  
Max. Input Current [Ad.c.] : 11  
Overvoltage Category (OVC) : II for PV

Rated Output Voltage [Va.c.] : 230V  
Rated Output Frequency [Hz] : 50/60  
Rated Output Power [kW] : 700/1000  
Max. Output Current [As.c.] : 4.4/5.2  
Power Factor : [-0.80, 0.80]  
Overvoltage Category (OVC) : III for AC mains

continued on page 0002

**ANLAGE (Appendix) : 1**

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich beachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg  
Tel.: +49 221 806-1171 e-mail: cen-validity@de.tuv.com  
Fax: +49 221 806-3935 http://www.tuv.com/safety



Weichun Li

**Zertifikat****Certificate**

Zertifikat Nr. Certificate No.  
R 50379026

Blatt Sheet  
0002

| Ihr Zeichen Client Reference | Unser Zeichen Our Reference | Ausstellungsdatum Date of Issue | (day/month/year) |
|------------------------------|-----------------------------|---------------------------------|------------------|
| 52109827                     | 01-DJW-50081618 001         | 18.05.2017                      |                  |

**Genehmigungsinhaber License Holder**  
Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront)  
Industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

**Fertigungsstätte Manufacturing Plant**  
Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront)  
Industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

**Prüfzeichen Test Mark****Geprüft nach Tested acc. to**

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

**Zertifiziertes Produkt (Geräteidentifikation)**  
**Certified Product (Product Identification)**

**Lizenzentgelte - Einheit**  
**License Fee - Unit**

**PV-Wechselrichter (Grid-connected PV Inverter)****Continuation**

Type Designation : Solis-mini-1500-4G  
Solis-mini-2000-4G

Vmax PV [Vd.c.] : 600  
Isc PV [Ad.c.] : 17.2  
MPP Voltage Range[Vd.c.] : 141-400/187-400  
Max. Input Current[Ad.c.] : 11  
Overvoltage Category (OVC) : II for PV

Rated Output Voltage[Va.c.] : 230V  
Rated Output Frequency[Hz] : 50/60  
Rated Output Power[kW] : 1500/2000  
Max. Output Current[Aa.c.] : 8.1/9.1  
Power Factor : [-0.80, 0.80]  
Overvoltage Category (OVC) : III for AC mains

continued on page 0003

**ANLAGE (Appendix): 1**

Dieses Zertifikat besagt unsere Prüfung und Zertifizierungsentscheidung zugunsten und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
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TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com  
Fax: +49 221 806-3935 http://www.tuv.com/safety



Weichun Li

**Zertifikat****Certificate**

Zertifikat Nr. Certificate No.  
R 50379026

Blatt Sheet  
0003

| Das Zeichen Client Reference | Unser Zeichen Our Reference | Ausstellungsdatum Date of Issue | (day/month/year) |
|------------------------------|-----------------------------|---------------------------------|------------------|
| 52109827                     | 01-DJW-50081618 001         | 18.05.2017                      |                  |

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Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafont)  
Industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
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**Fertigungsstätte Manufacturing Plant**  
Ningbo Ginlong technologies  
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No.57 Jintong Road, Binhai,  
(seafont)  
Industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

**Prüfzeichen Test Mark**

Beitrag zur  
Sicherheit  
Regelmäßige  
Produktions-  
Überwachung  
www.tuv.com  
ID 1419047346

**Gepriift nach Tested acc. to**

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

**Zertifiziertes Produkt (Geräteidentifikation)**  
Certified Product (Product Identification)

**Lizenzentgelte - Einheit**  
License Fee - Unit

**PV-Wechselrichter (Grid-connected PV Inverter)**

Continuation  
Type Designation : Solis-mini-2500-4G  
Solis-mini-3000-4G

Vmax PV [Vd.c.] : 600  
IsC PV [Ad.c.] : 17.2  
MPP Voltage Range [Vd.c.] : 234-400/281-500  
Max. Input Current [Ad.c.] : 11  
Overvoltage Category (OVC) : II for PV

Rated Output Voltage [Va.c.] : 230V  
Rated Output Frequency [Hz] : 50/60  
Rated Output Power [kW] : 2500/3000  
Max. Output Current [Aa.c.] : 11.4/13.6  
Power Factor : [-0.80, 0.80]  
Overvoltage Category (OVC) : III for AC mains

continued on page 0004

**ANLAGE (Appendix) : 1**

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TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg  
Tel.: +49 221 806-1371 e-mail: cert-safety@tuv.com  
Fax: +49 221 806-3935 http://www.tuv.com/safety



Weichun Li

**Zertifikat****Certificate**Zertifikat Nr. Certificate No.  
R 50379026Blatt Sheet  
0004Ihr Zeichen Client Reference  
52109827Unser Zeichen Our Reference  
01-DJM-50081618 001Ausstellungsdatum Date of Issue  
18.05.2017 (day/month/year)

**Genehmigungsinhaber License Holder**  
Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront)  
Industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
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No.57 Jintong Road, Binhai,  
(seafront)  
Industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

**Prüfzeichen Test Mark****Geprüft nach Tested acc. to**

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

**Zertifiziertes Produkt (Geräteidentifikation)**  
**Certified Product (Product Identification)**

**Lizenzentgelte - Einheit**  
**License Fee - Unit**

**PV-Wechselrichter (Grid-connected PV Inverter)**

Continuation  
Type Designation : Solis-mini-3500-40  
  
Vmax PV [Vd.c.] : 600  
Isr PV [Ad.c.] : 17.2  
MPP Voltage Range[Vd.c.] : 337-500  
Max. Input Current [Ad.c.] : 11  
Overvoltage Category (OVC) : II for PV  
  
Rated Output Voltage[Va.c.] : 230V  
Rated Output Frequency[Hz] : 50/60  
Rated Output Power[kW] : 3600  
Max. Output Current[Aa.c.] : 16  
Power Factor : [-0.80, 0.80]  
Overvoltage Category (OVC) : III for AC mains

continued on page 0005

**ANLAGE (Appendix): 1**

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Fax: +49 221 896-3935 <http://www.tuv.com/safety>



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**Zertifikat****Certificate**Zertifikat Nr. Certificate No.  
R 50379026Blatt Sheet  
0005

| Ihr Zeichen Client Reference | Unser Zeichen Our Reference | Ausstellungsdatum Date of Issue |
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**Genehmigungsinhaber License Holder**  
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Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront)  
Industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

**Fertigungsstätte Manufacturing Plant**  
Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront)  
Industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

**Prüfzeichen Test Mark****Geprüft nach Tested acc. to**

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

**Zertifiziertes Produkt (Geräteidentifikation)**  
**Certified Product (Product Identification)**

**Lizenzentgelte - Einheit**  
**License Fee - Unit**

**PV-Wechselrichter (Grid-connected PV Inverter)**

as page 0004  
Continuation

15

Protective Class : I  
Enclosure Protection (IP) : IP65  
Pollution degree (PD) : PD 2 (inside), PD3 (outside)  
Altitude [m] : 4000  
Operating Temperature [°C] : -25 to 60 (> 45 derating)  
Type of Inverter : Non-isolated

**Remark:**

The installation has to be carried out according to the  
Any additional requirements in countries where the product  
is going to be marketed have to be considered additionally.

15

**ANLAGE (Appendix) : 1**

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität  
des Produktes mit den oben genannten Standards und Prüfverfahren. Zusätzliche Anforderungen  
in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich  
beachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity  
of the product with the standards and testing requirements as indicated above. Any additional  
requirements in countries where the product is going to be marketed have to be considered  
additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg  
Tel.: +49 221 806-1371 e-mail: cen-validity@de.tuv.com  
Fax: +49 221 806-3933 http://www.tuv.com/safety



Weichun Li

TÜV Rheinland (China) Ltd.  
Member of TÜV Rheinland Group



Ningbo Ginlong technologies Co.,  
Ltd.  
Zhang Kun

Date : 18.05.2017  
Our ref. : DJW 01  
Your ref.: 52109827

No.57 Jintong Road, Binhai,  
(seafront)  
industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

Ref : AN Certificate of Conf. Low Voltage D.

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : AN 50379081 0001  
Report No. : 50081618 001

Dear Zhang Kun,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body

  
Weichun Li

Enclosure

证书的详细信息请登陆[www.certipedia.com](http://www.certipedia.com)查询, 或拨打我司客服热线800 996 3668 / 400 863 1950咨询

TÜV Rheinland (China) Ltd.  
莱茵检测认证服务 (中国) 有限公司

Unit 707, AVIC Bldg., No. 108,  
Central Road, East 3rd Ring  
Road, Chaoyang District,  
Beijing, 100022, P.R.China

北京市朝阳区东三环中路乙10号  
安悦大厦707室  
邮编: 100022

Tel: (8610) 6566 6566  
Fax: (8610) 6566 6867  
e-mail: [info@bj.chn.tuv.com](mailto:info@bj.chn.tuv.com)  
Internet: <http://www.chn.tuv.com>

# C E R T I F I C A T E



of Conformity  
Low Voltage Directive 2014/35/EU

Registration No.: AN 50379081 0001

Report No.: 50081618 001

**Holder:** Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront) industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

**Product:** PV-Inverter  
(Grid-connected PV Inverter)

**Identification:**

|                    |                                                                           |                    |
|--------------------|---------------------------------------------------------------------------|--------------------|
| Type Designation : | Solis-mini-700-4G                                                         | Solis-mini-1000-4G |
|                    | Solis-mini-1500-4G                                                        | Solis-mini-2000-4G |
|                    | Solis-mini-2500-4G                                                        | Solis-mini-3000-4G |
|                    | Solis-mini-3600-4G                                                        |                    |
| Serial Number :    | A000534491-001                                                            |                    |
| Remark :           | Issued in conjunction with TÜV Rheinland<br>license R 50379026 0001-0005. |                    |

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with Annex I of Council Directive 2014/35/EU, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex IV of the Directive.

Date 18.05.2017

Certificate No. 50081618 001

Wei Chun Li

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

CE The CE marking may be used if all relevant and effective EC Directives are complied with. CE



# 1P 4G

## 2.5kW - 6kW

### Solis 1P 4G Single Phase Inverter

- ▶ Solis 1P 4G Single Phase Range
- ▶ High frequency switching technology - Smaller, smarter
- ▶ Dual MPPT design with precise MPPT algorithm
- ▶ Intergrated Export Power Manager(EPM)
- ▶ Over 98.1% Max.efficiency
- ▶ RS485, WiFi/LAN/GPRS (optional) interface
- ▶ WiFi monitoring available-iphone and android app available
- ▶ 5 years standard warranty, 20 years optional upgrade



#### Model:

Solis-1P2.5K-4G

Solis-1P3K-4G

Solis-1P3.6K-4G

Solis-1P4K-4G

Solis-1P4.6K-4G

Solis-1P5K-4G

Solis-1P6K-4G

#### Features:

EPM

Export power  
manager

HF SWITCH

High switch  
frequency

AFCl

Optional

IP65

WiFi/GPRS

Real time  
monitoring

Available on the iPhone  
App Store

Available on the Android  
App Store

# Datasheet

| Model                                | Solis-1P2.5K-4G                                                        | Solis-1P3K-4G | Solis-1P3.6K-4G | Solis-1P4K-4G | Solis-1P4.6K-4G | Solis-1P5K-4G | Solis-1P6K-4G |
|--------------------------------------|------------------------------------------------------------------------|---------------|-----------------|---------------|-----------------|---------------|---------------|
| Energy Source                        | PV                                                                     |               |                 |               |                 |               |               |
| Input Side(DC)                       |                                                                        |               |                 |               |                 |               |               |
| Max. DC input power(kW)              | 3                                                                      | 3.5           | 4.2             | 4.6           | 5.3             | 5.8           | 6.6           |
| Max. DC input voltage(V)             | 550                                                                    | 600           |                 |               |                 |               |               |
| Start-up voltage(V)                  | 60                                                                     | 120           |                 |               |                 |               |               |
| MPPT voltage range(V)                | 50-450                                                                 | 90-520        |                 |               |                 |               |               |
| Max. input current per MPPT(A/B)     | 11A+11A                                                                |               |                 |               |                 |               |               |
| MPPT number/Max input strings number | 2/2                                                                    |               |                 |               |                 |               |               |
| Output Side (AC)                     |                                                                        |               |                 |               |                 |               |               |
| Rated output power(kW)               | 2.5                                                                    | 3             | 3.6             | 4             | 4.6             | 5             | 6             |
| Max. apparent output power(kVA)      | 2.8                                                                    | 3.3           | 4               | 4.4           | 5               | 5             | 6             |
| Max. output power(kW)                | 2.8                                                                    | 3.3           | 4               | 4.4           | 5               | 5             | 6             |
| Rated grid voltage(V <sub>LL</sub> ) | 220/230                                                                |               |                 |               |                 |               |               |
| Rated grid frequency(Hz)             | 50/60                                                                  |               |                 |               |                 |               |               |
| Operation phase                      | Single                                                                 |               |                 |               |                 |               |               |
| Rated grid output current(A)         | 11.4/10.9                                                              | 13.6/13       | 16/15.7         | 18.2/17.4     | 20.9/20         | 22.7/21.7     | 27.3          |
| Max. output current(A)               | 13.3                                                                   | 15.7          | 16              | 21            | 23.8            | 25            | 27.3          |
| Power Factor (at rated output power) | 0.8 leading ... 0.8 lagging                                            |               |                 |               |                 |               |               |
| THDi                                 | <3%                                                                    |               |                 |               |                 |               |               |
| DC injection current(mA)             | <0.5%I <sub>n</sub>                                                    |               |                 |               |                 |               |               |
| Grid frequency range(Hz)             | 47-52 or 57-62                                                         |               |                 |               |                 |               |               |
| Efficiency                           |                                                                        |               |                 |               |                 |               |               |
| Max.efficiency                       | 97.8%                                                                  |               |                 | 98.1%         |                 |               |               |
| EU efficiency                        | 97.1%                                                                  |               |                 | 97.3%         |                 |               |               |
| MPPT efficiency                      | >99.5%                                                                 |               |                 |               |                 |               |               |
| Protection                           |                                                                        |               |                 |               |                 |               |               |
| DC reverse-polarity protection       | Yes                                                                    |               |                 |               |                 |               |               |
| Short circuit protection             | Yes                                                                    |               |                 |               |                 |               |               |
| Output over current protection       | Yes                                                                    |               |                 |               |                 |               |               |
| Output over voltage protection       | Yes                                                                    |               |                 |               |                 |               |               |
| Insulation resistance monitoring     | Yes                                                                    |               |                 |               |                 |               |               |
| Residual current detection           | Yes                                                                    |               |                 |               |                 |               |               |
| Surge protection                     | Yes                                                                    |               |                 |               |                 |               |               |
| Islanding protection                 | Yes                                                                    |               |                 |               |                 |               |               |
| Temperature protection               | Yes                                                                    |               |                 |               |                 |               |               |
| Integrated DC switch                 | Optional                                                               |               |                 |               |                 |               |               |
| General Data                         |                                                                        |               |                 |               |                 |               |               |
| Dimensions(mm)                       | 310W*543H*160D                                                         |               |                 |               |                 |               |               |
| Weight(kg)                           | 11.5                                                                   |               |                 |               |                 |               |               |
| Topology                             | Transformerless                                                        |               |                 |               |                 |               |               |
| Self consumption (night)             | <1W(Night)                                                             |               |                 |               |                 |               |               |
| Operating ambient temperature range  | -25~60℃                                                                |               |                 |               |                 |               |               |
| Ingress protection                   | IP65                                                                   |               |                 |               |                 |               |               |
| Noise emission{typical}              | <30 dBA                                                                |               |                 |               |                 |               |               |
| Cooling concept                      | Natural convection                                                     |               |                 |               |                 |               |               |
| Max.operation altitude               | 4000m                                                                  |               |                 |               |                 |               |               |
| Designed lifetime                    | >20 years                                                              |               |                 |               |                 |               |               |
| Grid connection standard             | EN50438, G83/2, G59/3, AS4777.2:2015, VDE0126-1-1, IEC61727, VDE N4105 |               |                 |               |                 |               |               |
| Relative humidity                    | 0~100%                                                                 |               |                 |               |                 |               |               |
| Safety/EMC standard                  | IEC62109-1/-2, NB/T 32004, EN61000-6-1, EN61000-6-3                    |               |                 |               |                 |               |               |
| Features                             |                                                                        |               |                 |               |                 |               |               |
| DC connection                        | MC-4 mateable                                                          |               |                 |               |                 |               |               |
| AC connection                        | IP67 rated plug                                                        |               |                 |               |                 |               |               |
| Display                              | LCD,2×20 Z.                                                            |               |                 |               |                 |               |               |
| Communication connections            | 4 pins RS485 connector                                                 |               |                 |               |                 |               |               |
| Warranty                             | 5 years standard (extend to 20 years)                                  |               |                 |               |                 |               |               |

**C E R T I F I C A T E**  
of Conformity



Registration No.: AK 50403828 0001

Report No.: 50132563 001

**Holder:** Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P. R. China

**Product:** PV-Inverter  
(Grid-Connected PV Inverter)

**Identification:** Type Designation : Solis-1P5K-4G Solis-1P4K-4G  
Serial Number : Engineering Samples  
Firmware version : V13  
Remark(s) : Refer to report 50132563 001 for details.

**Tested acc. to:** IEC 61727:2004  
IEC 62116:2014

The certificate of conformity refers to the above mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned above. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity.



Date 29.03.2018

  
Weichun Li

**TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg**



Product Service

# CERTIFICATE

No. B 17 04 86470 019

**Holder of Certificate:** **Ningbo Ginlong Technologies Co., Ltd.**

No.57 Jintong Road  
 Binhai Industrial Park, Xiangshan  
 315712 Ningbo, Zhejiang  
 PEOPLE'S REPUBLIC OF CHINA



**Certification Mark:**



**Product:**

**Converter  
 Grid-Tied Inverter**

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

**Test report no.:** 704091623704-00

**Valid until:** 2022-03-31

**Date,** 2017-04-06  
 Page 1 of 3

*(Signature)*  
 (Zhengdong Ma)





Product Service

**CERTIFICATE****No. B 17 04 86470 019****Model(s):**

Solis-1P5K-4G, Solis-1P4.6K-4G, Solis-1P4K-4G,  
 Solis-1P3.6K-4G, Solis-1P3K-4G, Solis-1P2.5K-4G,  
 Solis-1P2K-4G, Solis-1P1.5K-4G, Solis-1P1K-4G,  
 URE-1P5K-4G, URE-1P4.6K-4G, URE-1P4K-4G,  
 URE-1P3.6K-4G, URE-1P3K-4G, URE-1P2.5K-4G,  
 URE-1P2K-4G, URE-1P1.5K-4G, URE-1P1K-4G,  
 GCI-1P5K-4G, GCI-1P4.6K-4G, GCI-1P4K-4G,  
 GCI-1P3.6K-4G, GCI-1P3K-4G, GCI-1P2.5K-4G,  
 GCI-1P2K-4G, GCI-1P1.5K-4G, GCI-1P1K-4G,  
 Mate-5K-4G, Mate-4.6K-4G, Mate-4K-4G,  
 Mate-3.6K-4G, Mate-3K-4G, Mate-2.5K-4G,  
 Mate-2K-4G, Mate-1.5K-4G, Mate-1K-4G,  
 Solis-1P3K-4G-ST, URE-1P3K-4G-ST,  
 GCI-1P3K-4G-ST, Mate-3K-4G-ST.

**Parameters:**

|                                 |                    |
|---------------------------------|--------------------|
| Max. input voltage:             | see attachment     |
| MPP voltage range:              | See attachment     |
| Max. input current:             | See attachment     |
| Isc PV (absolute maximum):      | See attachment     |
| Rated grid voltage:             | a.c. 230/240V      |
| Rated grid frequency:           | 50/60Hz            |
| Max. AC output active power:    | See attachment     |
| Max. AC output apparent power:  | See attachment     |
| Max. continuous output current: | See attachment     |
| Adjustable cos(φ):              | 0.8...1...0.8      |
| Protection class:               | I                  |
| Degree of protection:           | IP65               |
| Overvoltage category:           | III(MAINS), II(PV) |
| Ambient temperature:            | -25 ... +60°C      |

Other ratings refer to attachment.

**Tested according to:**

IEC 62109-1(ed.1)  
 IEC 62109-2(ed.1)  
 EN 62109-1:2010  
 EN 62109-2:2011

**Production Facility(ies):**

86470

Page 2 of 3

# CERTIFICATE

## No. B 17 04 86470 019



Product Service

Electrical ratings for various models:

|                                 |                                                           |                                                                   |                                                           |                                                                   |
|---------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------|
| Models                          | Solis-1P1K-4G<br>GCI-1P1K-4G<br>Mate-1K-4G<br>URE-1P1K-4G | Solis-1P1.5K-4G<br>GCI-1P1.5K-4G<br>Mate-1.5K-4G<br>URE-1P1.5K-4G | Solis-1P2K-4G<br>GCI-1P2K-4G<br>Mate-2K-4G<br>URE-1P2K-4G | Solis-1P2.5K-4G<br>GCI-1P2.5K-4G<br>Mate-2.5K-4G<br>URE-1P2.5K-4G |
| <b>PV input ratings:</b>        |                                                           |                                                                   |                                                           |                                                                   |
| Max. input voltage:             | d.c. 550 V                                                |                                                                   |                                                           |                                                                   |
| MPP voltage range:              | d.c. 50 – 450V                                            |                                                                   |                                                           |                                                                   |
| Max. input current:             | d.c. 11A                                                  |                                                                   |                                                           |                                                                   |
| Isc PV (absolute maximum):      | d.c. 17.2A                                                |                                                                   |                                                           |                                                                   |
| <b>AC output:</b>               |                                                           |                                                                   |                                                           |                                                                   |
| Rated grid voltage:             | a.c. 230/240V                                             |                                                                   |                                                           |                                                                   |
| Rated grid frequency:           | 50/60Hz                                                   |                                                                   |                                                           |                                                                   |
| Max. AC output active power:    | 1100W                                                     | 1700W                                                             | 2200W                                                     | 2800W                                                             |
| Max. AC output apparent power:  | 1100VA                                                    | 1700VA                                                            | 2200VA                                                    | 2800VA                                                            |
| Max. Continuous output current: | a.c. 5.2A                                                 | a.c. 8.1A                                                         | a.c. 10.5A                                                | a.c. 13.3A                                                        |

| Models                          | Solis-1P3K-4G<br>GCI-1P3K-4G<br>Mate-3K-4G<br>URE-1P3K-4G | Solis-1P3.6K-4G<br>GCI-1P3.6K-4G<br>Mate-3.6K-4G<br>URE-1P3.6K-4G | Solis-1P4K-4G<br>GCI-1P4K-4G<br>Mate-4K-4G<br>URE-1P4K-4G | Solis-1P4.6K-4G<br>GCI-1P4.6K-4G<br>Mate-4.6K-4G<br>URE-1P4.6K-4G | Solis-1P5K-4G<br>GCI-1P5K-4G<br>Mate-5K-4G<br>URE-1P5K-4G |
|---------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------|
| <b>PV input ratings:</b>        |                                                           |                                                                   |                                                           |                                                                   |                                                           |
| Max. input voltage:             | d.c. 600 V                                                |                                                                   |                                                           |                                                                   |                                                           |
| MPP voltage range:              | d.c. 100 – 500V                                           |                                                                   |                                                           |                                                                   |                                                           |
| Max. input current:             | d.c. 2x11A                                                |                                                                   |                                                           |                                                                   |                                                           |
| Isc PV (absolute maximum):      | d.c. 2x17.2A                                              |                                                                   |                                                           |                                                                   |                                                           |
| <b>AC output:</b>               |                                                           |                                                                   |                                                           |                                                                   |                                                           |
| Rated grid voltage:             | a.c. 230/240V                                             |                                                                   |                                                           |                                                                   |                                                           |
| Rated grid frequency:           | 50/60Hz                                                   |                                                                   |                                                           |                                                                   |                                                           |
| Max. AC output active power:    | 3300W                                                     | 4000W                                                             | 4400W                                                     | 4600W                                                             | 5000W                                                     |
| Max. AC output apparent power:  | 3300VA                                                    | 4000VA                                                            | 4400VA                                                    | 4600VA                                                            | 5000VA                                                    |
| Max. Continuous output current: | a.c. 15.7A                                                | a.c. 16A                                                          | a.c. 21A                                                  | a.c. 25A                                                          | a.c. 25A                                                  |

| Models                          | Solis-1P3K-4G-ST, GCI-1P3K-4G-ST, Mate-3K-4G-ST, URE-1P3K-4G-ST |
|---------------------------------|-----------------------------------------------------------------|
| <b>PV input ratings:</b>        |                                                                 |
| Max. input voltage:             | d.c. 600 V                                                      |
| MPP voltage range:              | d.c. 100 – 500V                                                 |
| Max. input current:             | d.c. 11A                                                        |
| Isc PV (absolute maximum):      | d.c. 17.2A                                                      |
| <b>AC output:</b>               |                                                                 |
| Rated grid voltage:             | a.c. 230/240V                                                   |
| Rated grid frequency:           | 50/60Hz                                                         |
| Max. AC output active power:    | 3300W                                                           |
| Max. AC output apparent power:  | 3300VA                                                          |
| Max. Continuous output current: | a.c. 15.7A                                                      |

# C E R T I F I C A T E

of Conformity



Registration No.: AK 50419820 0001

Report No.: 50181860 001

Holder: Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo, Zhejiang 315712  
P. R. China

Product: PV-Inverter  
(Grid-connected PV Inverter)

Identification: Type Designation: Solis-1P6K-4G Solis-1P5K-4G  
Solis-1P4.6K-4G Solis-1P4K-4G  
Solis-1P3.6K-4G Solis-1P3K-4G  
Solis-1P2.5K-4G  
Firmware Version: 1F0010  
Remark(s) : Refer to report 50181860 001 for details.

Tested acc. to: UTE C15-712-1/07.13  
DIN VDE 0126-1-1/A1 VFR2014  
Enedis-NOI-RES\_13E

The certificate of conformity refers to the above mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned above. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity.



Date 10.10.2018

Wei Chun Li

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

## Certificat de conformité

**Fabricant :** Ningbo Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai, (seafont) Industrial Park, Xiangshan,  
Ningbo, zhejiang, 315712, P.R. China

**Type unité de production :** onduleur photovoltaïque lié au réseau

**Modèle:** Solis-1P2.5K-4G, Solis-1P3K-4G, Solis-1P3.6K-4G, Solis-1P4K-4G,  
Solis-1P4.6K-4G, Solis-1P5K-4G, Solis-1P6K-4G

**Version micrologiciel :** 1F0010

**Règles de raccordement au réseau :** UTE C 15-712-1/07.13  
UNION TECHNIQUE DE L'ELECTRICITE, GUIDE PRATIQUE, Installations photovoltaïques raccordées au réseau public de distribution  
**ENEDIS-NOI-RES\_13E : 2016**  
Protections of production facilities connected to the public distribution network  
**DIN VDE 0126-1-1/A1 VFR 2014**  
Organe de commutation automatique entre une installation de production autonome parallèle au réseau et le réseau à basse tension public

**Numéro rapport d'essai :** 50181860 001

**Numéro de certificat :** AK 50419820 0001

**Date d'émission :** October 10, 2018



Li Weichun  
General Manager

TÜV Rheinland LGA Products GmbH – Tillystraße 2 – 90431 Nürnberg



Product Service

# Compliance Document

No. D 086470 0039 Rev. 00

**Holder of Certificate:** Ningbo Ginlong Technologies Co., Ltd.

No.57 Jintong Road  
Binhai Industrial Park, Xiangshan  
315712 Ningbo, Zhejiang  
PEOPLE'S REPUBLIC OF CHINA

**Product:**

**Converter  
Grid-Tied Inverter**

This Compliance document confirms the compliance with the listed standards on a voluntary basis. It refers only to the sample submitted for testing and certification and does not certify the quality or safety of the serial products. See also notes overleaf.

**Test report no.:**

704091805709-00

**Date,**

2018-10-25

( Zhengdong Ma )

# Compliance Document

No. D 086470 0039 Rev. 00

**Model(s):**
**Solis-1P2.5K-4G, Solis-1P3K-4G, Solis-1P3.6K-4G,  
Solis-1P4K-4G, Solis-1P4.6K-4G, Solis-1P5K-4G,  
Solis-1P6K-4G**
**Parameters:**

| Models:                         | Solis-1P2.5K-4G | Solis-1P3K-4G  | Solis-1P3.6K-4G | Solis-1P4K-4G  |
|---------------------------------|-----------------|----------------|-----------------|----------------|
| <b>PV input ratings:</b>        |                 |                |                 |                |
| Max. input voltage:             | d.c. 550 V      | d.c. 600 V     | d.c. 600 V      | d.c. 600 V     |
| MPP voltage range:              | d.c. 50 – 450V  | d.c. 90 – 520V | d.c. 90 – 520V  | d.c. 90 – 520V |
| Max. input current:             | d.c. 2x11A      | d.c. 2x11A     | d.c. 2x11A      | d.c. 2x11A     |
| Isc PV (absolute maximum):      | d.c. 2x17.2A    | d.c. 2x17.2A   | d.c. 2x17.2A    | d.c. 2x17.2A   |
| <b>AC output:</b>               |                 |                |                 |                |
| Rated grid voltage:             | a.c. 230/240V   |                |                 |                |
| Rated grid frequency:           | 50/60Hz         |                |                 |                |
| Rated output power:             | 2500W           | 3000W          | 3600W           | 4000W          |
| Max. AC output active power:    | 2800W           | 3300W          | 4000W           | 4400W          |
| Max. AC output apparent power:  | 2800VA          | 3300VA         | 4000VA          | 4400VA         |
| Max. Continuous output current: | a.c. 13.3A      | a.c. 15.7A     | a.c. 16A        | a.c. 21A       |
| Adjustable cos(φ)               | -0.8...1...+0.8 |                |                 |                |

| Models:                         | Solis-1P4.6K-4G | Solis-1P5K-4G | Solis-1P6K-4G |
|---------------------------------|-----------------|---------------|---------------|
| <b>PV input ratings:</b>        |                 |               |               |
| Max. input voltage:             | d.c. 600 V      |               |               |
| MPP voltage range:              | d.c. 90 – 520V  |               |               |
| Max. input current:             | d.c. 2x11A      |               |               |
| Isc PV (absolute maximum):      | d.c. 2x17.2A    |               |               |
| <b>AC output:</b>               |                 |               |               |
| Rated grid voltage:             | a.c. 230/240V   |               |               |
| Rated grid frequency:           | 50/60Hz         |               |               |
| Rated output power:             | 4600W           | 5000W         | 6000W         |
| Max. AC output active power:    | 5000W           | 5000W         | 6000W         |
| Max. AC output apparent power:  | 5000VA          | 5000VA        | 6000VA        |
| Max. Continuous output current: | a.c. 23.8A      | a.c. 25A      | a.c. 27.3A    |
| Adjustable cos(φ)               | -0.8...1...+0.8 |               |               |

|                                |                    |
|--------------------------------|--------------------|
| <b>General specifications:</b> |                    |
| Protection class:              | I                  |
| Degree of protection:          | IP65               |
| Overvoltage category:          | II(PV), III(MAINS) |
| Ambient temperature:           | -25...+60°C        |

**Tested according to:** DIN VDE 0126-1-1 (VDE V 0126-1-1):2013

# S6-GR1P(2.5-6)K

Solis Single Phase Inverters



360 degree

## 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
- ▶ Integrated Export Power Manager (EPM)
- ▶ Integrated AFCI (DC arc-fault circuit protection)
- ▶ Compact and lightweight
- ▶ Friendly and adaptable connection to the grid



## Model:

|             |             |             |
|-------------|-------------|-------------|
| S6-GR1P2.5K | S6-GR1P3K   | S6-GR1P3.6K |
| S6-GR1P4K   | S6-GR1P4.6K | S6-GR1P5K   |
| S6-GR1P6K   |             |             |

## Datasheet

| Model Name | S6-GR1P2.5K | S6-GR1P3K | S6-GR1P3.6K | S6-GR1P4K | S6-GR1P4.6K | S6-GR1P5K | S6-GR1P6K |
|------------|-------------|-----------|-------------|-----------|-------------|-----------|-----------|
|------------|-------------|-----------|-------------|-----------|-------------|-----------|-----------|

### Input DC

|                                       |          |          |        |             |        |        |      |
|---------------------------------------|----------|----------|--------|-------------|--------|--------|------|
| 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         |        |        |      |

### Output AC

|                            |                                   |                 |                 |                 |                 |                 |        |
|----------------------------|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------|
| 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 / 60 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%                               |                 |                 |                 |                 |                 |        |

### Efficiency

|                 |       |       |       |       |
|-----------------|-------|-------|-------|-------|
| Max. efficiency | 97.3% | 97.3% | 97.6% | 97.7% |
| EU efficiency   | 96.5% | 96.6% | 97.1% | 97.1% |

### Protection

|                                                   |                    |
|---------------------------------------------------|--------------------|
| 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           |

### General Data

|                                     |                                                                                                                                                                                                                                                   |         |       |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|
| 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 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 61000-6-2/-3                                                                                                                                                                                                            |         |       |

### Features

|               |                              |
|---------------|------------------------------|
| DC connection | MC4 connector                |
| AC connection | Quick connection plug        |
| Display       | LCD                          |
| Communication | RS485, Optional: Wi-Fi, GPRS |

(1) Activation required.



Product Service

# Attestation of Conformity

No. N8A 086470 0020 Rev. 05

**Holder of Certificate:** **Ginlong Technologies Co., Ltd.**

No.57 Jintong Road  
Binhai Industrial Park, Xiangshan  
315712 Ningbo, Zhejiang  
PEOPLE'S REPUBLIC OF CHINA

**Product:** **Converter**  
**PV Grid-Tied Inverter**

This Attestation of Conformity is issued on a voluntary basis according to the Low Voltage Directive 2014/35/EU relating to electrical equipment designed for use within certain voltage limits. It confirms that the listed equipment complies with the principal protection requirements of the directive and is based on the technical specifications applicable at the time of issuance. It refers only to the particular sample submitted for testing and certification. For details see: [www.tuvsud.com/ps-cert](http://www.tuvsud.com/ps-cert)

**Test report no.:** 704091623704-05

**Date,** 2021-08-17

( Zhengdong Ma )



Product Service

# Attestation of Conformity

No. N8A 086470 0020 Rev. 05

## Model(s):

Solis-1P2.5K-4G, Solis-1P3K-4G, Solis-1P3.6K-4G,  
 Solis-1P4K-4G, Solis-1P4.6K-4G, Solis-1P5K-4G-MX,  
 Solis-1P5K-4G, Solis-1P6K-4G, Solis-1P2.5K-4G-C,  
 Solis-1P3K-4G-C, Solis-1P3.6K-4G-C, Solis-1P4K-4G-C,  
 Solis-1P4.6K-4G-C, Solis-1P5K-4G-MX-C, Solis-1P5K-4G-C,  
 Solis-1P6K-4G-C, S5-GR1P2.5K, S5-GR1P3K,  
 S5-GR1P3.6K, S5-GR1P4K, S5-GR1P4.6K,  
 S5-GR1P5K, S5-GR1P6K.  
 S6-GR1P2.5K, S6-GR1P3K, S6-GR1P3.6K,  
 S6-GR1P4K, S6-GR1P4.6K, S6-GR1P5K,  
 S6-GR1P6K.S6-GR1P2.5K-R, S6-GR1P3K-R,  
 S6-GR1P3.6K-R, S6-GR1P4K-R, S6-GR1P4.6K-R,  
 S6-GR1P5K-R, S6-GR1P6K-R.

## Parameters:

| Models                          | Solis-1P2.5K-4G<br>Solis-1P2.5K-4G-C | Solis-1P3K-4G<br>Solis-1P3K-4G-C | Solis-1P3.6K-4G<br>Solis-1P3.6K-4G-C | Solis-1P4K-4G<br>Solis-1P4K-4G-C |
|---------------------------------|--------------------------------------|----------------------------------|--------------------------------------|----------------------------------|
| PV input ratings:               |                                      |                                  |                                      |                                  |
| Max. input voltage:             | 550Vd.c.                             | 600Vd.c.                         | 600Vd.c.                             | 600Vd.c.                         |
| MPP voltage range:              | 50-450Vd.c.                          | 90-520Vd.c.                      | 90-520Vd.c.                          | 90-520Vd.c.                      |
| Max. input current:             | 2 x 11Ad.c.                          | 2 x 11Ad.c.                      | 2 x 11Ad.c.                          | 2 x 11Ad.c.                      |
| Isc PV (absolute maximum):      | 2 x 17.2Ad.c.                        | 2 x 17.2Ad.c.                    | 2 x 17.2Ad.c.                        | 2 x 17.2Ad.c.                    |
| AC output ratings:              |                                      |                                  |                                      |                                  |
| Rated grid voltage:             | 1/N/PE<br>220/230Va.c.               | 1/N/PE<br>220/230Va.c.           | 1/N/PE<br>220/230Va.c.               | 1/N/PE<br>220/230Va.c.           |
| Rated grid frequency:           | 50/60Hz                              | 50/60Hz                          | 50/60Hz                              | 50/60Hz                          |
| Rated output power:             | 2500W                                | 3000W                            | 3600W                                | 4000W                            |
| Max. AC output active power:    | 2800W                                | 3300W                            | 4000W                                | 4400W                            |
| Max. AC output apparent power:  | 2800VA                               | 3300VA                           | 4000VA                               | 4400VA                           |
| Max. continuous output current: | 13.3Aa.c.                            | 15.7Aa.c.                        | 16Aa.c.                              | 21Aa.c.                          |

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After preparation of the necessary technical documentation as well as the EU declaration of conformity the required CE marking can be affixed on the product. The declaration of conformity is issued under the sole responsibility of the manufacturer. Other relevant EU-directives have to be observed.



Product Service

# Attestation of Conformity

No. N8A 086470 0020 Rev. 05

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Product Service

# Attestation of Conformity

No. N8A 086470 0020 Rev. 05

| Models                          | Solis-1P4.6K-4G<br>Solis-1P4.6K-4G-C | Solis-1P5K-4G<br>Solis-1P5K-4G-C | Solis-1P5K-4G-MX<br>Solis-1P5K-4G-MX-C | Solis-1P6K-4G<br>Solis-1P6K-4G-C |
|---------------------------------|--------------------------------------|----------------------------------|----------------------------------------|----------------------------------|
| PV input ratings:               |                                      |                                  |                                        |                                  |
| Max. input voltage:             | 600Vd.c.                             | 600Vd.c.                         | 600Vd.c.                               | 600Vd.c.                         |
| MPP voltage range:              | 90-520Vd.c.                          | 90-520Vd.c.                      | 90-520Vd.c.                            | 90-520Vd.c.                      |
| Max. input current:             | 2 x 11Ad.c.                          | 2 x 11Ad.c.                      | 2 x 11Ad.c.                            | 2 x 11Ad.c.                      |
| Isc PV (absolute maximum):      | 2 x 17.2Ad.c.                        | 2 x 17.2Ad.c.                    | 2 x 17.2Ad.c.                          | 2 x 17.2Ad.c.                    |
| AC output ratings:              |                                      |                                  |                                        |                                  |
| Rated grid voltage:             | 1/N/PE<br>220/230Va.c.               | 1/N/PE<br>220/230Va.c.           | 1/N/PE<br>220/230Va.c.                 | 1/N/PE<br>220/230Va.c.           |
| Rated grid frequency:           | 50/60Hz                              | 50/60Hz                          | 50/60Hz                                | 50/60Hz                          |
| Rated output power:             | 4600W                                | 5000W                            | 4999W                                  | 6000W                            |
| Max. AC output active power:    | 5000W                                | 5000W                            | 4999W                                  | 6000W                            |
| Max. AC output apparent power:  | 5000VA                               | 5000VA                           | 4999VA                                 | 6000VA                           |
| Max. continuous output current: | 23.8Aa.c.                            | 25Aa.c.                          | 21.7Aa.c.                              | 27.3Aa.c.                        |

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Product Service

# Attestation of Conformity

No. N8A 086470 0020 Rev. 05

| Models                          | S5-GR1P2.5K<br>S6-GR1P2.5K<br>S6-GR1P2.5K-R | S5-GR1P3K<br>S6-GR1P3K<br>S6-GR1P3K-R | S5-GR1P3.6K<br>S6-GR1P3.6K<br>S6-GR1P3.6K-R | S6-GR1P4K<br>S6-GR1P4K<br>S6-GR1P4K-R |
|---------------------------------|---------------------------------------------|---------------------------------------|---------------------------------------------|---------------------------------------|
| PV input ratings:               |                                             |                                       |                                             |                                       |
| Max. input voltage:             | 550Vd.c.                                    | 600Vd.c.                              | 600Vd.c.                                    | 600Vd.c.                              |
| MPP voltage range:              | 50-450Vd.c.                                 | 90-520Vd.c.                           | 90-520Vd.c.                                 | 90-520Vd.c.                           |
| Max. input current:             | 2 x 14Ad.c.                                 | 2 x 14Ad.c.                           | 2 x 14Ad.c.                                 | 2 x 14Ad.c.                           |
| Isc PV (absolute maximum):      | 2 x 22Ad.c.                                 | 2 x 22Ad.c.                           | 2 x 22Ad.c.                                 | 2 x 22Ad.c.                           |
| AC output ratings:              |                                             |                                       |                                             |                                       |
| Rated grid voltage:             | 1/N/PE<br>220/230Va.c.                      | 1/N/PE<br>220/230Va.c.                | 1/N/PE<br>220/230Va.c.                      | 1/N/PE<br>220/230Va.c.                |
| Rated grid frequency:           | 50/60Hz                                     | 50/60Hz                               | 50/60Hz                                     | 50/60Hz                               |
| Rated output power:             | 2500W                                       | 3000W                                 | 3600W                                       | 4000W                                 |
| Max. AC output active power:    | 2800W                                       | 3300W                                 | 4000W                                       | 4400W                                 |
| Max. AC output apparent power:  | 2800VA                                      | 3300VA                                | 4000VA                                      | 4400VA                                |
| Max. continuous output current: | 13.3Aa.c.                                   | 15.7Aa.c.                             | 16Aa.c.                                     | 21Aa.c.                               |

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After preparation of the necessary technical documentation as well as the EU declaration of conformity the required CE marking can be affixed on the product. The declaration of conformity is issued under the sole responsibility of the manufacturer. Other relevant EU-directives have to be observed.



Product Service

# Attestation of Conformity

No. N8A 086470 0020 Rev. 05

| Models                          | S5-GR1P4.6K<br>S6-GR1P4.6K<br>S6-GR1P4.6K-R | S5-GR1P5K<br>S6-GR1P5K<br>S6-GR1P5K-R | S5-GR1P6K<br>S6-GR1P6K<br>S6-GR1P6K-R |
|---------------------------------|---------------------------------------------|---------------------------------------|---------------------------------------|
| Max. input voltage:             | 600Vd.c.                                    | 600Vd.c.                              | 600Vd.c.                              |
| MPP voltage range:              | 90-520Vd.c.                                 | 90-520Vd.c.                           | 90-520Vd.c.                           |
| Max. input current:             | 2 x 14Ad.c.                                 | 2 x 14Ad.c.                           | 2 x 14Ad.c.                           |
| Isc PV (absolute maximum):      | 2 x 22Ad.c.                                 | 2 x 22Ad.c.                           | 2 x 22Ad.c.                           |
| Rated grid voltage:             | 1/N/PE<br>220/230Va.c.                      | 1/N/PE<br>220/230Va.c.                | 1/N/PE<br>220/230Va.c.                |
| Rated grid frequency:           | 50/60Hz                                     | 50/60Hz                               | 50/60Hz                               |
| Rated output power:             | 4600W                                       | 5000W                                 | 6000W                                 |
| Max. AC output active power:    | 5000W                                       | 5000W                                 | 6000W                                 |
| Max. AC output apparent power:  | 5000VA                                      | 5000VA                                | 6000VA                                |
| Max. continuous output current: | 23.8Aa.c.                                   | 25Aa.c.                               | 27.3Aa.c.                             |

| General specifications: |                    |                  |
|-------------------------|--------------------|------------------|
| Models                  | S6 series molds    | all other models |
| Adjustable cos(φ)       | -0.8...1...+0.8    |                  |
| Protection class        | I                  |                  |
| Degree of protection    | IP66               | IP65             |
| Overvoltage category    | II(PV), III(MAINS) |                  |
| Ambient temperature     | -25°C ... +60°C    |                  |
| Inverter topology       | Non-isolated       |                  |

**Tested  
according to:**

EN 62109-1:2010  
EN 62109-2:2011

# C E R T I F I C A T E

## of Conformity



Registration No.: AK 50514285 0001

Report No.: CN20G2DH 002

Holder: **Ginlong technologies Co., Ltd.**  
**No.57 Jintong Road, Binhai,**  
**(seafront), Industrial Park,**  
**Xiangshan Ningbo**  
**315712 Zhejiang**  
**P.R. China**

Product: PV-Inverter  
(Grid-Connected PV Inverter)

Identification: Type Designation: S6-GR1PxxK (xx=2.5,3,3.6,4,4.6,5,6)  
Solis-1Pxxk-4G (xx=2.5,3,3.6,4,4.6,5,6)  
Firmware Version: V2F  
Serial Number : Engineering Samples  
Remark : Refer to test report CN20G2DH 002 for detail.

Tested acc. to: IEC 61727:2004  
IEC 62116:2014

The certificate of conformity refers to the above mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned above. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity.

Date 27.08.2021



Weichun Li

**TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg**

Ginlong technologies Co., Ltd.  
Zhang Kun

Date : 27.08.2021  
Our ref. : LIUPHI 01  
Your ref.: Z.K

No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Ref : AK Certificate of Conformity**

Type of Equipment : Grid-Connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : AK 50514285 0001  
Report No. : CN20G2DH 002

Dear Zhang Kun,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body

  
Weichun Li

Enclosure

证书的详细资料请登陆[www.certipedia.com](http://www.certipedia.com)查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

# S5-GR3P(3-20)K

## Solis Three Phase Inverters



360 degree

### Model:

S5-GR3P3K   S5-GR3P4K   S5-GR3P5K   S5-GR3P6K   S5-GR3P8K   S5-GR3P9K   S5-GR3P10K  
S5-GR3P12K   S5-GR3P13K   S5-GR3P15K   S5-GR3P17K   S5-GR3P20K



#### Efficient

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



#### Safe

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



#### Smart

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



#### Economic

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

## Datasheet

| Model Name | S5-GR3P3K | S5-GR3P4K | S5-GR3P5K | S5-GR3P6K | S5-GR3P8K | S5-GR3P9K | S5-GR3P10K | S5-GR3P12K | S5-GR3P13K | S5-GR3P15K | S5-GR3P17K | S5-GR3P20K |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|
|------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|

### Input DC

|                                       |             |      |        |      |       |         |             |       |         |         |         |       |
|---------------------------------------|-------------|------|--------|------|-------|---------|-------------|-------|---------|---------|---------|-------|
| 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            | 25 A / 25 A |      |        |      |       |         | 50 A / 50 A |       |         |         |         |       |
| MPPT number/Max. input strings number | 2/2         |      |        |      |       |         | 2/4         |       |         |         |         |       |

### Output AC

|                            |                                      |                  |                  |                  |                    |                    |                    |                    |                    |                    |                    |                    |
|----------------------------|--------------------------------------|------------------|------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 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 / 60 Hz                        |                  |                  |                  |                    |                    |                    |                    |                    |                    |                    |                    |
| Rated grid output current  | 4.6 A /<br>4.3 A                     | 6.1 A /<br>5.8 A | 7.6 A /<br>7.2 A | 9.1 A /<br>8.7 A | 12.2 A /<br>11.5 A | 13.7 A /<br>13.0 A | 15.2 A /<br>14.4 A | 18.2 A /<br>17.3 A | 19.8 A /<br>18.8 A | 22.8 A /<br>21.7 A | 25.8 A /<br>24.6 A | 30.4 A /<br>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%                                  |                  |                  |                  |                    |                    |                    |                    |                    |                    |                    |                    |

### Efficiency

|                 |       |  |  |  |       |  |  |  |       |  |  |  |       |
|-----------------|-------|--|--|--|-------|--|--|--|-------|--|--|--|-------|
| Max. efficiency | 98.3% |  |  |  | 98.5% |  |  |  | 98.6% |  |  |  | 98.7% |
| EU efficiency   | 97.7% |  |  |  | 97.9% |  |  |  | 98.0% |  |  |  | 98.1% |

### Protection

|                                                   |                    |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------|--------------------|--|--|--|--|--|--|--|--|--|--|--|
| 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           |  |  |  |  |  |  |  |  |  |  |  |

### General Data

|                                     |                                                                                                                                                                                                                                         |  |                                   |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------|
| Dimensions (W*H*D)                  | 310*563*219 mm                                                                                                                                                                                                                          |  |                                   |
| Weight                              | 17.8 kg                                                                                                                                                                                                                                 |  | 18.8 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            | 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 |  |                                   |
| Safety/EMC standard                 | IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4                                                                                                                                                                                            |  |                                   |

### Features

|               |                              |  |  |  |  |  |  |  |  |  |  |  |
|---------------|------------------------------|--|--|--|--|--|--|--|--|--|--|--|
| DC connection | MC4 connector                |  |  |  |  |  |  |  |  |  |  |  |
| AC connection | Quick connection plug        |  |  |  |  |  |  |  |  |  |  |  |
| Display       | LCD                          |  |  |  |  |  |  |  |  |  |  |  |
| Communication | RS485, Optional: Wi-Fi, GPRS |  |  |  |  |  |  |  |  |  |  |  |

(1) Activation required.

**C E R T I F I C A T E**  
of Conformity



**Registration No.:** AK 50514507 0001

**Report No.:** 50171233 006

**Holder:** Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Product:** PV-Inverter  
(Grid-connected PV Inverter)

**Identification:** Type Designation : Solis-3PxK-4G S5-GR3PyK  
(x=5,6,8,9,10,12,15,17,20)  
(y=3,4,5,6,8,9,10,12,13,15,17,20)  
Serial Number : Engineering Samples  
Firmware version : V18  
Remark(s) : Refer to report 50171233 006 for details.

**Tested acc. to:** IEC 61727:2004  
IEC 62116:2014

The certificate of conformity refers to the above mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned above. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity.

**Date** 13.08.2021

A circular blue stamp with the TÜV Rheinland logo in the center. The text around the logo reads "TÜV Rheinland LGA Products GmbH" and "Zertifizierungsstelle". Below the stamp, the name "Weichun Li" is written in blue ink.  
**Certification Body**  
TÜV Rheinland  
Weichun Li

**TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg**

Ginlong technologies Co., Ltd.  
Zhang Kun

Date : 13.08.2021  
Our ref. : PJG 01  
Your ref.: Kun Zhang

No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Ref : AK Certificate of Conformity**

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : AK 50514556 0001  
Report No. : 50330358 004

Dear Zhang Kun,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body

  
Weichun Li

CC: Ginlong technologies Co., Ltd.

Enclosure

证书的详细信息请登陆[www.certipedia.com](http://www.certipedia.com)查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

# Zertifikat

# Certificate



Zertifikat Nr. Certificate No.  
R 50384315

Blatt Sheet  
0016

Ihr Zeichen Client Reference  
Qingying Cui

Unser Zeichen Our Reference  
01-Kese-50166775 014

Ausstellungsdatum Date of Issue  
18.08.2021 (day/mo/yr)

## Genehmigungsinhaber License Holder

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte Manufacturing Plant

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Prüfzeichen Test Mark



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## Geprüft nach Tested acc. to

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product Identification)

## Lizenzentgelte - Einheit License Fee - Unit

### PV-Wechselrichter (Grid-connected PV Inverter)

Type Designation : S5-GR3P3K S5-GR3P4K S5-GR3P5K

3

Vmax PV [Vd.c.] : 1100  
Isc PV [Ad.c.] : 25/25  
MPP Voltage Range [Vd.c.] : 160-1000  
Max. Input Current [Ad.c.] : 16/16  
Overvoltage Category (OVC) : II for PV

Rated Output Volt. [Va.c.] : 3/N/PE, 220/380 V, 230/400 V  
Rated Output Freq. [Hz] : 50/60  
Rated Output Power [W] : 3000 4000 5000  
Max. Output Curr. [Aa.c.] : 4.7 6.4 7.9  
Power Factor : [-0.80, 0.80]

continued on page 0017

3

### ANLAGE (Appendix) : 1.2

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com

Fax: +49 221 806-3935 http://www.tuv.com/safety



Weichun Li

# Zertifikat

# Certificate



Zertifikat Nr. Certificate No.  
R 50384315

Blatt Sheet  
0017

| Ihr Zeichen Client Reference | Unser Zeichen Our Reference | Ausstellungsdatum Date of Issue |
|------------------------------|-----------------------------|---------------------------------|
| Qingying Cui                 | 01-Kese-50166775 014        | 18.08.2021 (day/mo/yr)          |

## Genehmigungsinhaber License Holder

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte Manufacturing Plant

Ginlong technologies Co., Ltd.  
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## Prüfzeichen Test Mark



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IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product Identification)

## Lizenzentgelte - Einheit License Fee - Unit

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0016 continuation

3

Type Designation : S5-GR3P6K S5-GR3P8K S5-GR3P9K

Vmax PV [Vd.c.] : 1100  
Isc PV [Ad.c.] : 25/25  
MPP Voltage Range[Vd.c.] : 160-1000  
Max. Input Current[Ad.c.] : 16/16  
Overvoltage Category (OVC) : II for PV

Rated Output Volt.[Va.c.] : 3/N/PE, 220/380 V, 230/400 V  
Rated Output Freq.[Hz] : 50/60  
Rated Output Power[W] : 6000 8000 9000  
Max. Output Curr.[Aa.c.] : 9.5 12.7 14.3  
Power Factor : [-0.80, 0.80]

continued on page 0018

## ANLAGE (Appendix): 1.2

3

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.

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Fax: +49 221 806-3935 http://www.tuv.com/safety



Weichun Li

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50384315

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0018

| Ihr Zeichen <i>Client Reference</i> | Unser Zeichen <i>Our Reference</i> | Ausstellungsdatum <i>Date of Issue</i> |
|-------------------------------------|------------------------------------|----------------------------------------|
| Qingying Cui                        | 01-Kese-50166775 014               | 18.08.2021<br>(day/mo/yr)              |

**Genehmigungsinhaber *License Holder***  
Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Fertigungsstätte *Manufacturing Plant***  
Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Prüfzeichen *Test Mark*



## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

## Lizenzentgelte - Einheit *License Fee - Unit*

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0017 continuation

2

|                            |                                |            |
|----------------------------|--------------------------------|------------|
| Type Designation           | : S5-GR3P10K                   | S5-GR3P12K |
| Vmax PV [Vd.c.]            | : 1100                         |            |
| Isc PV [Ad.c.]             | : 25/25                        | 50/50      |
| MPP Voltage Range [Vd.c.]  | : 160-1000                     |            |
| Max. Input Current [Ad.c.] | : 16/16                        | 32/32      |
| Overvoltage Category (OVC) | : II for PV                    |            |
| Rated Output Volt. [Va.c.] | : 3/N/PE, 220/380 V, 230/400 V |            |
| Rated Output Freq. [Hz]    | : 50/60                        |            |
| Rated Output Power [W]     | : 10000                        | 12000      |
| Max. Output Curr. [Aa.c.]  | : 15.9                         | 19.1       |
| Power Factor               | : [-0.80, 0.80]                |            |

continued on page 0019

## ANLAGE (Appendix): 1.2

2

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
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**TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg**

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Weichun Li

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50384315

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0019

| Ihr Zeichen <i>Client Reference</i> | Unser Zeichen <i>Our Reference</i> | Ausstellungsdatum | <i>Date of Issue</i> |
|-------------------------------------|------------------------------------|-------------------|----------------------|
| Qingying Cui                        | 01-Kese-50166775 014               | 18.08.2021        | (day/mo/yr)          |

## Genehmigungsinhaber *License Holder*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafont), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte *Manufacturing Plant*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafont), Industrial Park,  
Xiangshan Ningbo  
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## Prüfzeichen *Test Mark*



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IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

## Lizenzentgelte - Einheit *License Fee - Unit*

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0018 continuation

2

|                            |                                |
|----------------------------|--------------------------------|
| Type Designation           | : S5-GR3P13K S5-GR3P15K        |
| Vmax PV [Vd.c.]            | : 1100                         |
| Isc PV [Ad.c.]             | : 50/50                        |
| MPP Voltage Range[Vd.c.]   | : 160-1000                     |
| Max. Input Current[Ad.c.]  | : 32/32                        |
| Overvoltage Category (OVC) | : II for PV                    |
| Rated Output Volt.[Va.c.]  | : 3/N/PE, 220/380 V, 230/400 V |
| Rated Output Freq.[Hz]     | : 50/60                        |
| Rated Output Power[W]      | : 13000 15000                  |
| Max. Output Curr.[Aa.c.]   | : 20.7 23.8                    |
| Power Factor               | : [-0.80, 0.80]                |

continued on page 0020

## ANLAGE (Appendix): 1.2

2

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
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Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com  
Fax: +49 221 806-3935 http://www.tuv.com/safety

Zertifizierungsstelle



Weichun Li

# Zertifikat

# Certificate



Zertifikat Nr. Certificate No.  
R 50384315

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0020

| Ihr Zeichen Client Reference | Unser Zeichen Our Reference | Ausstellungsdatum Date of Issue |
|------------------------------|-----------------------------|---------------------------------|
| Qingying Cui                 | 01-Kese-50166775 014        | 18.08.2021 (day/mo/yr)          |

## Genehmigungsinhaber License Holder

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte Manufacturing Plant

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
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## Prüfzeichen Test Mark



## Geprüft nach Tested acc. to

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product Identification)

## Lizenzentgelte - Einheit License Fee - Unit

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0019 continuation

2

|                            |                                |
|----------------------------|--------------------------------|
| Type Designation           | : S5-GR3P17K S5-GR3P20K        |
| Vmax PV [Vd.c.]            | : 1100                         |
| Isc PV [Ad.c.]             | : 50/50                        |
| MPP Voltage Range[Vd.c.]   | : 160-1000                     |
| Max. Input Current[Ad.c.]  | : 32/32                        |
| Overvoltage Category (OVC) | : II for PV                    |
| Rated Output Volt.[Va.c.]  | : 3/N/PE, 220/380 V, 230/400 V |
| Rated Output Freq.[Hz]     | : 50/60                        |
| Rated Output Power[W]      | : 17000 20000                  |
| Max. Output Curr.[Aa.c.]   | : 27 31.8                      |
| Power Factor               | : [-0.80, 0.80]                |

continued on page 0021

## ANLAGE (Appendix): 1.2

2

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
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Weichun Li

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50384315

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0021

| Ihr Zeichen <i>Client Reference</i> | Unser Zeichen <i>Our Reference</i> | Ausstellungsdatum | <i>Date of Issue</i> |
|-------------------------------------|------------------------------------|-------------------|----------------------|
| Qingying Cui                        | 01-Kese-50166775 014               | 18.08.2021        | (day/mo/yr)          |

## Genehmigungsinhaber *License Holder*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte *Manufacturing Plant*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Prüfzeichen *Test Mark*



## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

## Lizenzentgelte - Einheit *License Fee - Unit*

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0020 continuation

3

Type Designation : S5-GR3P5K-AU S5-GR3P6K-AU S5-GR3P8K-AU

|                            |             |       |       |
|----------------------------|-------------|-------|-------|
| Vmax PV [Vd.c.]            | : 1100      |       |       |
| Isc PV [Ad.c.]             | : 50/25     | 50/25 | 50/50 |
| MPP Voltage Range[Vd.c.]   | : 160-1000  |       |       |
| Max. Input Current[Ad.c.]  | : 32/16     | 32/16 | 32/32 |
| Overvoltage Category (OVC) | : II for PV |       |       |

|                           |                     |      |      |
|---------------------------|---------------------|------|------|
| Rated Output Volt.[Va.c.] | : 3/N/PE, 230/400 V |      |      |
| Rated Output Freq.[Hz]    | : 50                |      |      |
| Rated Output Power[W]     | : 5000              | 6000 | 8000 |
| Max. Output Curr.[Aa.c.]  | : 7.9               | 9.5  | 12.7 |
| Power Factor              | : [-0.80, 0.80]     |      |      |

continued on page 0022

ANLAGE (Appendix): 1.2

3

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.

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TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com  
Fax: +49 221 806-3935 http://www.tuv.com/safety



# Zertifikat

# Certificate



Zertifikat Nr. Certificate No.  
R 50384315

Blatt Sheet  
0022

Ihr Zeichen Client Reference  
Qingying Cui

Unser Zeichen Our Reference  
01-Kese-50166775 014

Ausstellungsdatum Date of Issue  
18.08.2021 (day/mo/yr)

## Genehmigungsinhaber License Holder

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte Manufacturing Plant

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P.R. China

## Prüfzeichen Test Mark



Bauart geprüft  
Sicherheit  
Regelmäßige  
Produktions-  
überwachung

www.tuv.com  
ID 1419049315

## Geprüft nach Tested acc. to

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation)

Certified Product (Product Identification)

## Lizenzentgelte - Einheit

License Fee - Unit

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0021 continuation

2

Type Designation : S5-GR3P9K-AU S5-GR3P10K-AU

Vmax PV [Vd.c.] : 1100  
Isc PV [Ad.c.] : 50/50  
MPP Voltage Range[Vd.c.] : 160-1000  
Max. Input Current[Ad.c.] : 32/32  
Overvoltage Category (OVC) : II for PV

Rated Output Volt.[Va.c.] : 3/N/PE, 230/400 V  
Rated Output Freq.[Hz] : 50  
Rated Output Power[W] : 9000 10000  
Max. Output Curr.[Aa.c.] : 14.3 15.9  
Power Factor : [-0.80, 0.80]

continued on page 0023

ANLAGE (Appendix): 1.2

2

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Fax: +49 221 806-3935 http://www.tuv.com/safety



Weichun Li

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50384315

Blatt *Sheet*  
0023

| Ihr Zeichen <i>Client Reference</i> | Unser Zeichen <i>Our Reference</i> | Ausstellungsdatum | <i>Date of Issue</i> |
|-------------------------------------|------------------------------------|-------------------|----------------------|
| Qingying Cui                        | 01-Kese-50166775 014               | 18.08.2021        | (day/mo/yr)          |

## Genehmigungsinhaber *License Holder*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte *Manufacturing Plant*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
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315712 Zhejiang  
P.R. China

## Prüfzeichen *Test Mark*



Bauart geprüft  
Sicherheit  
Regelmäßige  
Produktions-  
überwachung

www.tuv.com  
ID 1419049315

## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

## Lizenzentgelte - Einheit *License Fee - Unit*

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0022 continuation

3

Type Designation: S5-GR3P5K-LV S5-GR3P6K-LV S5-GR3P10K-LV

|                            |             |       |       |
|----------------------------|-------------|-------|-------|
| Vmax PV [Vd.c.]            | : 1100      |       |       |
| Isc PV [Ad.c.]             | : 25/25     | 25/25 | 50/50 |
| MPP Voltage Range[Vd.c.]   | : 160-500   |       |       |
| Max. Input Current[Ad.c.]  | : 16/16     | 16/16 | 32/32 |
| Overvoltage Category (OVC) | : II for PV |       |       |

|                           |                         |      |       |
|---------------------------|-------------------------|------|-------|
| Rated Output Volt.[Va.c.] | : 3/N/PE, 208/220/240 V |      |       |
| Rated Output Freq.[Hz]    | : 50/60                 |      |       |
| Rated Output Power[W]     | : 5000                  | 6000 | 10000 |
| Max. Output Curr.[Aa.c.]  | : 14.4                  | 16.7 | 28.8  |
| Power Factor              | : [-0.80, 0.80]         |      |       |

continued on page 0024

## ANLAGE (Appendix): 1.2

3

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Weichun Li

# Zertifikat

# Certificate



Zertifikat Nr. Certificate No.  
R 50384315

Blatt Sheet  
0024

| Ihr Zeichen Client Reference | Unser Zeichen Our Reference | Ausstellungsdatum Date of Issue |
|------------------------------|-----------------------------|---------------------------------|
| Qingying Cui                 | 01-Kese-50166775 014        | 18.08.2021 (day/mo/yr)          |

## Genehmigungsinhaber License Holder

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
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315712 Zhejiang  
P.R. China

## Fertigungsstätte Manufacturing Plant

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P.R. China

## Prüfzeichen Test Mark



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ID 1419049315

## Geprüft nach Tested acc. to

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product Identification)

## Lizenzentgelte - Einheit License Fee - Unit

## PV-Wechselrichter (Grid-connected PV Inverter)

as page 0023 continuation

2

Type Designation : S5-GR3P8K-BE S5-GR3P10K-BE

Vmax PV [Vd.c.] : 1100  
Isc PV [Ad.c.] : 50/50  
MPP Voltage Range[Vd.c.] : 160-1000  
Max. Input Current[Ad.c.] : 32/32  
Overvoltage Category (OVC) : II for PV

Rated Output Volt.[Va.c.] : 3/N/PE, 230/400 V  
Rated Output Freq.[Hz] : 50  
Rated Output Power[W] : 8000 10000  
Max. Output Curr.[Aa.c.] : 12.7 15.9  
Power Factor : [-0.80, 0.80]

continued on page 0025

## ANLAGE (Appendix): 1.2

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.

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Weichun Li

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50384315

Blatt *Sheet*  
0025

Ihr Zeichen *Client Reference*

Qingying Cui

Unser Zeichen *Our Reference*

01-Kese-50166775 014

Ausstellungsdatum

18.08.2021

*Date of Issue*

(day/mo/yr)

Genehmigungsinhaber *License Holder*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
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Fertigungsstätte *Manufacturing Plant*

Ginlong technologies Co., Ltd.  
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Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

Zertifiziertes Produkt (Geräteidentifikation)  
*Certified Product (Product Identification)*

Lizenzentgelte - Einheit  
*License Fee - Unit*

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0024 continuation

Protective Class : Class I  
Ingress Protection (IP) : IP66  
Pollution Degree (PD) : PD3  
Operating Temperature [°C]: -25 to 60 (> 45 derating)  
Type of Inverter : Non-isolated

Remark(s):

The installation has to be carried out according to the attached installation instruction.  
Any additional requirements in countries where the product is going to be marketed have to be considered additionally.

ANLAGE (Appendix): 1.2

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
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Weichun Li

3P 4G

5kW  
-  
10kW

4G<sup>+</sup> NEW

## Solis 3P 4G Three Phase Inverter

- ▶ Solis 4G Three Phase Range
- ▶ 160V-850V MPPT voltage range-ultra low startup
- ▶ Dual MPPT design with precise MPPT algorithm
- ▶ THDi<1.5%, low harmonic distortion against grid
- ▶ Over 98.7% Max. efficiency
- ▶ RS485, WiFi/LAN/GPRS (optional) interface
- ▶ Multiple protections levels
- ▶ WiFi monitoring available-iphone and android app available
- ▶ 5 years standard warranty, 20 years optional upgrade



### Model:

220V Solis-3P5K-4G-LV      Solis-3P6K-4G-LV  
400V Solis-3P5K-4G      Solis-3P6K-4G      Solis-3P8K-4G  
         Solis-3P9K-4G      Solis-3P10K-4G

### Features:

THDi

<1.5%

IP65

160-850

MPPT voltage  
range

AFCI

Optional

WiFi/GPRS

Real time  
monitoring

Available on the iPhone  
App Store

Available on the Android  
App Store

# Datasheet

| Model                                | Solis-3P5K-4G-LV                              | Solis-3P6K-4G-LV | Solis-3P5K-4G | Solis-3P6K-4G | Solis-3P8K-4G | Solis-3P9K-4G | Solis-3P10K-4G |
|--------------------------------------|-----------------------------------------------|------------------|---------------|---------------|---------------|---------------|----------------|
| Energy Source                        | PV                                            |                  |               |               |               |               |                |
| Input Side(DC)                       |                                               |                  |               |               |               |               |                |
| Max. DC input power(kW)              | 6                                             | 7.2              | 6             | 7.2           | 9.6           | 10.8          | 12             |
| Max. DC input voltage(V)             | 1000                                          |                  |               |               |               |               |                |
| Start-up voltage(V)                  | 180                                           |                  |               |               |               |               |                |
| MPPT voltage range(V)                | 160-500                                       |                  | 160-850       |               |               |               |                |
| Max. input current per MPPT(A/B)     | 11A+11A                                       |                  |               |               |               |               |                |
| MPPT number/Max input strings number | 2/2                                           |                  |               |               |               |               |                |
| Output Side (AC)                     |                                               |                  |               |               |               |               |                |
| Rated output power(kW)               | 5                                             | 6                | 5             | 6             | 8             | 9             | 10             |
| Max. apparent output power(kVA)      | 5.5                                           | 6.6              | 5.5           | 6.6           | 8.8           | 9.9           | 11             |
| Max. output power(kW)                | 5.5                                           | 6.6              | 5.5           | 6.6           | 8.8           | 9.9           | 11             |
| Rated grid voltage(V <sub>LL</sub> ) | 208/220/240                                   |                  | 400           |               |               |               |                |
| Rated grid frequency(Hz)             | 50/60                                         |                  |               |               |               |               |                |
| Operation phase                      | Three                                         |                  |               |               |               |               |                |
| Rated grid output current@400V       | 13.1                                          | 15.7             | 7.2           | 8.7           | 11.5          | 13.0          | 14.4           |
| Max. output current(A)               | 14.4                                          | 16.7             | 7.9           | 9.5           | 12.7          | 14.3          | 15.9           |
| Power Factor (at rated output power) | 0.8 leading ... 0.8 lagging                   |                  |               |               |               |               |                |
| THDi                                 | <1.5%                                         |                  |               |               |               |               |                |
| DC injection current                 | <0.5%I <sub>n</sub>                           |                  |               |               |               |               |                |
| Grid frequency range(Hz)             | 47-52 or 57-62                                |                  |               |               |               |               |                |
| Efficiency                           |                                               |                  |               |               |               |               |                |
| Max.efficiency                       | 98.0%                                         |                  | 98.3%         |               | 98.7%         |               |                |
| EU efficiency                        | 97.5%                                         |                  | 97.8%         |               | 98.1%         |               |                |
| MPPT efficiency                      | >99.5%                                        |                  |               |               |               |               |                |
| Protection                           |                                               |                  |               |               |               |               |                |
| DC reverse-polarity protection       | Yes                                           |                  |               |               |               |               |                |
| Short circuit protection             | Yes                                           |                  |               |               |               |               |                |
| Output over current protection       | Yes                                           |                  |               |               |               |               |                |
| Output over voltage protection       | Yes                                           |                  |               |               |               |               |                |
| Insulation resistance monitoring     | Yes                                           |                  |               |               |               |               |                |
| Residual current detection           | Yes                                           |                  |               |               |               |               |                |
| Surge protection                     | Yes                                           |                  |               |               |               |               |                |
| Islanding protection                 | Yes                                           |                  |               |               |               |               |                |
| Temperature protection               | Yes                                           |                  |               |               |               |               |                |
| Integrated DC switch                 | Optional                                      |                  |               |               |               |               |                |
| General Data                         |                                               |                  |               |               |               |               |                |
| Dimensions(mm)                       | 310W*538H*158D                                |                  |               |               |               |               |                |
| Weight(kg)                           | 14.1                                          |                  | 13.6          |               | 14.1          |               |                |
| Topology                             | Transformerless                               |                  |               |               |               |               |                |
| Self consumption (night)             | <1W(Night)                                    |                  |               |               |               |               |                |
| Operating ambient temperature range  | -25~60℃                                       |                  |               |               |               |               |                |
| Ingress protection                   | IP65                                          |                  |               |               |               |               |                |
| Noise emission{typical}              | <30 dBA                                       |                  |               |               |               |               |                |
| Cooling concept                      | Natural convection                            |                  |               |               |               |               |                |
| Max.operation altitude               | 4000m                                         |                  |               |               |               |               |                |
| Designed lifetime                    | >20 years                                     |                  |               |               |               |               |                |
| Grid connection standard             | En50438, G59/3, AS4777, VDE0126-1-1, IEC61727 |                  |               |               |               |               |                |
| Relative humidity                    | 0~100%                                        |                  |               |               |               |               |                |
| Safety/EMC standard                  | IEC62109-1/-2, AS3100                         |                  |               |               |               |               |                |
| Features                             |                                               |                  |               |               |               |               |                |
| DC connection                        | MC-4 mateable                                 |                  |               |               |               |               |                |
| AC connection                        | Terminal connectors                           |                  |               |               |               |               |                |
| Display                              | LCD,2×20 Z.                                   |                  |               |               |               |               |                |
| Communication connections            | 4 pins RS485 connector                        |                  |               |               |               |               |                |
| Warranty                             | 5 years standard (extend to 20 years)         |                  |               |               |               |               |                |

3P 4G

10kW  
-  
20kW

4G<sup>+</sup> NEW

## Solis 3P 4G Three Phase Inverter

- ▶ Solis 4G Three Phase Range
- ▶ 160V-850V MPPT voltage range-ultra low startup
- ▶ Dual MPPT design with precise MPPT algorithm
- ▶ THDi<1.5%, low harmonic distortion against grid
- ▶ Over 98.7% Max. efficiency
- ▶ RS485, WiFi/LAN/GPRS (optional) interface
- ▶ Multiple protections levels
- ▶ WiFi monitoring available-iphone and android app available
- ▶ 5 years standard warranty, 20 years optional upgrade



### Model:

220V Solis-3P10K-4G-LV

400V Solis-3P12K-4G    Solis-3P15K-4G    Solis-3P17K-4G  
Solis-3P20K-4G

### Features:

THDi

<1.5%

IP65

Weight

18.9kg

AFCI

Optional

WiFi/GPRS

Real time  
monitoring

Available on the iPhone  
App Store

Available on the Android  
App Store

# Datasheet

| Model                                | Solis-3P10K-4G-LV                             | Solis-3P12K-4G | Solis-3P15K-4G | Solis-3P17K-4G | Solis-3P20K-4G |
|--------------------------------------|-----------------------------------------------|----------------|----------------|----------------|----------------|
| Energy Source                        | PV                                            |                |                |                |                |
| Input Side(DC)                       |                                               |                |                |                |                |
| Max. DC input power(kW)              | 12                                            | 14.5           | 18             | 20.4           | 24             |
| Max. DC input voltage(V)             | 1000                                          |                |                |                |                |
| Start-up voltage(V)                  | 180                                           |                |                |                |                |
| MPPT voltage range(V)                | 160-500                                       | 160-850        |                |                |                |
| Max. input current per MPPT(A/B)     | 22A+22A                                       |                |                |                |                |
| MPPT number/Max input strings number | 2/4                                           |                |                |                |                |
| Output Side (AC)                     |                                               |                |                |                |                |
| Rated output power(kW)               | 10                                            | 12             | 15             | 17             | 20             |
| Max. apparent output power(kVA)      | 11                                            | 13.2           | 16.5           | 18.7           | 22             |
| Max. output power(kW)                | 11                                            | 13.2           | 16.5           | 18.7           | 22             |
| Rated grid voltage(V <sub>LL</sub> ) | 208/220/240                                   | 400            |                |                |                |
| Rated grid frequency(Hz)             | 50/60                                         |                |                |                |                |
| Operation phase                      | Three                                         |                |                |                |                |
| Rated grid output current@400V       | 26.2                                          | 17.3           | 21.7           | 24.6           | 28.9           |
| Max. output current(A)               | 28.8                                          | 19.1           | 23.8           | 27             | 31.8           |
| Power Factor (at rated output power) | 0.8 leading ... 0.8 lagging                   |                |                |                |                |
| THDi                                 | <1.5%                                         |                |                |                |                |
| DC injection current(mA)             | <0.5%I <sub>n</sub>                           |                |                |                |                |
| Grid frequency range(Hz)             | 47-52 or 57-62                                |                |                |                |                |
| Efficiency                           |                                               |                |                |                |                |
| Max. efficiency                      | 98.0%                                         | 98.7%          |                |                |                |
| EU efficiency                        | 97.5%                                         | 98.1%          |                |                |                |
| MPPT efficiency                      | >99.5%                                        |                |                |                |                |
| Protection                           |                                               |                |                |                |                |
| DC reverse-polarity protection       | Yes                                           |                |                |                |                |
| Short circuit protection             | Yes                                           |                |                |                |                |
| Output over current protection       | Yes                                           |                |                |                |                |
| Output over voltage protection       | Yes                                           |                |                |                |                |
| Insulation resistance monitoring     | Yes                                           |                |                |                |                |
| Residual current detection           | Yes                                           |                |                |                |                |
| Surge protection                     | Yes                                           |                |                |                |                |
| Islanding protection                 | Yes                                           |                |                |                |                |
| Temperature protection               | Yes                                           |                |                |                |                |
| Integrated DC switch                 | Optional                                      |                |                |                |                |
| General Data                         |                                               |                |                |                |                |
| Dimensions(mm)                       | 310W*563H*219D                                |                |                |                |                |
| Weight(kg)                           | 19.8                                          | 18.9           |                | 19.8           |                |
| Topology                             | Transformerless                               |                |                |                |                |
| Self consumption (night)             | <1W(Night)                                    |                |                |                |                |
| Operating ambient temperature range  | -25°C~60°C                                    |                |                |                |                |
| Ingress protection                   | IP65                                          |                |                |                |                |
| Noise emission{typical}              | <30 dBA                                       |                |                |                |                |
| Cooling concept                      | Intelligent redundant fan-cooling             |                |                |                |                |
| Max.operation altitude               | 4000m                                         |                |                |                |                |
| Designed lifetime                    | >20 years                                     |                |                |                |                |
| Grid connection standard             | En50438, G59/3, AS4777, VDE0126-1-1, IEC61727 |                |                |                |                |
| Relative humidity                    | 0~100%                                        |                |                |                |                |
| Safety/EMC standard                  | IEC62109-1/-2, AS3100                         |                |                |                |                |
| Features                             |                                               |                |                |                |                |
| DC connection                        | MC-4 mateable                                 |                |                |                |                |
| AC connection                        | Terminal connectors                           |                |                |                |                |
| Display                              | LCD,2×20 Z.                                   |                |                |                |                |
| Communication connections            | 4 pins RS485 connector                        |                |                |                |                |
| Warranty                             | 5 years standard (extend to 20 years)         |                |                |                |                |

3P

15kW  
-  
40kW

## Solis Three PV Inverter

- ▶ Three phase output
- ▶ Over 98.8% Max. efficiency
- ▶ 200V- 1000V input voltage range
- ▶ 7.0" LCD color screen display
- ▶ Four MPPT design with precise MPPT algorithm
- ▶ Compact and light design, easy installation
- ▶ IP65 rated for outdoor installation
- ▶ RS485, WiFi/GPRS (optional) interface
- ▶ Anti-resonance, single transformer can connect 6M+ in parallel
- ▶ WiFi and monitoring app available
- ▶ 5 years standard warranty, 20 years optional upgrade



### Model:

|      |              |              |           |           |
|------|--------------|--------------|-----------|-----------|
| 220V | Solis-15K-LV | Solis-20K-LV |           |           |
| 400V | Solis-20K    | Solis-25K    | Solis-30K | Solis-33K |
| 480V | Solis-36K-HV | Solis-40K-HV |           |           |

### Features:

Fanless  
Cooling  
Concept

Four  
MPPT

7"  
LCD

WiFi/GPRS  
Real time  
monitoring

Available on the iPhone  
App Store  
Available on the Android  
App Store

IP65

# Datasheet

| Model                                | Solis-15K-LV                                    | Solis-20K-LV | Solis-20K       | Solis-25K | Solis-30K | Solis-33K | Solis-36K-HV | Solis-40K-HV |
|--------------------------------------|-------------------------------------------------|--------------|-----------------|-----------|-----------|-----------|--------------|--------------|
| Energy Source                        | PV                                              |              |                 |           |           |           |              |              |
| Input Side(DC)                       |                                                 |              |                 |           |           |           |              |              |
| Max. DC input power(kW)              | 18                                              | 24           | 24              | 30        | 36        | 40        | 43           | 48           |
| Max. DC input voltage(V)             | 1000                                            |              |                 |           |           |           |              |              |
| Start-up voltage(V)                  | 350                                             |              |                 |           |           |           |              |              |
| MPPT voltage range(V)                | 200-800                                         |              |                 |           |           |           |              |              |
| Max. input current per MPPT(A/B/C/D) | 20A+20A                                         |              | 18A+18A+18A+18A |           |           |           |              |              |
| MPPT number/Max input strings number | 2/4                                             |              | 4/8             |           |           |           |              |              |
| Output Side (AC)                     |                                                 |              |                 |           |           |           |              |              |
| Rated output power(kW)               | 15                                              | 20           | 20              | 25        | 30        | 33        | 36           | 40           |
| Max. apparent output power(kVA)      | 15                                              | 20           | 22              | 27.5      | 33        | 33        | 40           | 44           |
| Max. output power(kW)                | 15                                              | 20           | 22              | 27.5      | 33        | 33        | 40           | 44           |
| Rated grid voltage(V <sub>LL</sub> ) | 220                                             |              | 400             |           |           |           | 480          |              |
| Rated grid frequency(Hz)             | 50/60                                           |              |                 |           |           |           |              |              |
| Operation phase                      | Three                                           |              |                 |           |           |           |              |              |
| Rated grid output current@400V       | 39.4                                            | 52.5         | 28.7            | 36.1      | 43.3      | 47.8      | 43.3         | 48.1         |
| Max. output current(A)               | 39.4                                            | 52.5         | 33.3            | 41.7      | 50        | 50        | 47.8         | 53           |
| Power Factor (at rated output power) | 0.8 leading ... 0.8 lagging                     |              |                 |           |           |           |              |              |
| THDi                                 | <3%                                             |              |                 |           |           |           |              |              |
| DC injection current(mA)             | <0.5%I <sub>n</sub>                             |              |                 |           |           |           |              |              |
| Grid frequency range(Hz)             | 47-52 or 57-62                                  |              |                 |           |           |           |              |              |
| Efficiency                           |                                                 |              |                 |           |           |           |              |              |
| Max. efficiency                      | 97.0%                                           |              | 98.6%           |           |           | 98.7%     | 98.8%        |              |
| EU efficiency                        | 96.5%                                           |              | 98.3%           |           |           | 98.3%     | 98.4%        |              |
| MPPT efficiency                      | >99.9%                                          |              |                 |           |           |           |              |              |
| Protection                           |                                                 |              |                 |           |           |           |              |              |
| DC reverse-polarity protection       | Yes                                             |              |                 |           |           |           |              |              |
| Short circuit protection             | Yes                                             |              |                 |           |           |           |              |              |
| Output over current protection       | Yes                                             |              |                 |           |           |           |              |              |
| Output over voltage protection       | Yes                                             |              |                 |           |           |           |              |              |
| Insulation resistance monitoring     | Yes                                             |              |                 |           |           |           |              |              |
| Residual current detection           | Yes                                             |              |                 |           |           |           |              |              |
| Surge protection                     | Yes                                             |              |                 |           |           |           |              |              |
| Islanding protection                 | Yes                                             |              |                 |           |           |           |              |              |
| Temperature protection               | Yes                                             |              |                 |           |           |           |              |              |
| Integrated DC switch                 | Optional                                        |              |                 |           |           |           |              |              |
| General Data                         |                                                 |              |                 |           |           |           |              |              |
| Dimensions(mm)                       | 530W*700H*356.5D                                |              |                 |           |           |           |              |              |
| Weight(kg)                           | 58.2                                            |              | 57.2            | 58.2      |           |           |              |              |
| Topology                             | Transformerless                                 |              |                 |           |           |           |              |              |
| Self consumption (night)             | <1W(Night)                                      |              |                 |           |           |           |              |              |
| Operating ambient temperature range  | -25~60℃                                         |              |                 |           |           |           |              |              |
| Ingress protection                   | IP65                                            |              |                 |           |           |           |              |              |
| Noise emission{typical}              | <30 dBA                                         |              |                 |           |           |           |              |              |
| Cooling concept                      | Natural convection                              |              |                 |           |           |           |              |              |
| Max.operation altitude               | 4000m                                           |              |                 |           |           |           |              |              |
| Designed lifetime                    | >20 years                                       |              |                 |           |           |           |              |              |
| Grid connection standard             | EN50438, G59/3, AS4777, VDE0126-1-1, IEC61727   |              |                 |           |           |           |              |              |
| Relative humidity                    | 0~100%                                          |              |                 |           |           |           |              |              |
| Safety/EMC standard                  | IEC62109-1/-2, AS3100, EN61000-6-1, EN61000-6-3 |              |                 |           |           |           |              |              |
| Features                             |                                                 |              |                 |           |           |           |              |              |
| DC connection                        | MC-4 mateable                                   |              |                 |           |           |           |              |              |
| AC connection                        | Terminal connectors                             |              |                 |           |           |           |              |              |
| Display                              | 7.0"LCD color screen display                    |              |                 |           |           |           |              |              |
| Communication connections            | 4 pins RS485 connector , 2 RJ45 connector       |              |                 |           |           |           |              |              |
| Warranty                             | 5 years standard (extend to 20 years)           |              |                 |           |           |           |              |              |

# Solis-(40-60)K, Solis-(50-70)K-HV

## Solis Three Phase Inverters



### Features:

- ▶ Over 99% Max. efficiency
- ▶ Wide voltage range and low startup voltage
- ▶ 4 MPPT input, each rated current is 22A/28.5A, compatible with high power module
- ▶ THDi<3%, low harmonic distortion against grid
- ▶ Anti-resonance, Supporting over 6MW paralleled in one transformer
- ▶ Perfect commercial site monitoring solution
- ▶ Intelligent redundancy fan



### Model:

400V: Solis-40K      Solis-50K      Solis-60K-4G  
480V: Solis-50K-HV   Solis-60K-HV   Solis-70K-HV-4G

## Datasheet

| Model Name | Solis-40K | Solis-50K | Solis-50K-HV | Solis-60K-HV | Solis-60K-4G | Solis-70K-HV-4G |
|------------|-----------|-----------|--------------|--------------|--------------|-----------------|
|------------|-----------|-----------|--------------|--------------|--------------|-----------------|

### Input DC

|                                       |           |         |         |         |      |      |
|---------------------------------------|-----------|---------|---------|---------|------|------|
| Max. input power                      | 48kW      | 60kW    | 60kW    | 72kW    | 72kW | 84kW |
| Max. input voltage                    | 1100V     |         |         |         |      |      |
| Rated voltage                         | 600V      | 600V    | 720V    | 720V    | 600V | 720V |
| Start-up voltage                      | 200V      |         |         |         |      |      |
| MPPT voltage range                    | 200-1000V |         |         |         |      |      |
| Max. input current                    | 4*22A     | 4*28.5A | 4*22A   | 4*28.5A |      |      |
| Max. Short Circuit current            | 4*34.3A   | 4*44.5A | 4*34.3A | 4*44.5A |      |      |
| MPPT number/Max. input strings number | 4/8       | 4/12    | 4/8     | 4/12    |      |      |

### Output AC

|                            |                                                    |             |            |       |                            |            |
|----------------------------|----------------------------------------------------|-------------|------------|-------|----------------------------|------------|
| Rated output power         | 40kW                                               | 50kW        | 50kW       | 60kW  | 60kW                       | 70kW       |
| Max. apparent output power | 44kVA                                              | 55kVA       | 55kVA      | 66kVA | 66kVA                      | 77kVA      |
| Max. output power          | 44kW                                               | 55kW        | 55kW       | 66kW  | 66kW                       | 77kW       |
| Rated grid voltage         | 3/N/PE, 220/380V, 230/400V                         |             | 3/PE, 480V |       | 3/N/PE, 220/380V, 230/400V | 3/PE, 480V |
| Rated grid frequency       | 50Hz/60Hz                                          |             |            |       |                            |            |
| Rated grid output current  | 60.8A/58A                                          | 76.0A/72.2A | 60.2A      | 72.2A | 91.2A/86.6A                | 84.2A      |
| Max. output current        | 66.9A                                              | 83.3A       | 66.2A      | 80A   | 100A                       | 92.6A      |
| Power Factor               | >0.99 (Adjustable from 0.8 leading to 0.8 lagging) |             |            |       |                            |            |
| THDi                       | <3%                                                |             |            |       |                            |            |

### Efficiency

|                 |       |  |       |  |       |  |
|-----------------|-------|--|-------|--|-------|--|
| Max. efficiency | 98.8% |  | 99.0% |  | 99.0% |  |
| EU efficiency   | 98.4% |  | 98.7% |  | 98.5% |  |

### Protection

|                                |          |  |  |  |  |  |
|--------------------------------|----------|--|--|--|--|--|
| DC reverse-polarity protection | Yes      |  |  |  |  |  |
| Short circuit protection       | Yes      |  |  |  |  |  |
| Output over current protection | Yes      |  |  |  |  |  |
| Surge protection (DC/AC)       | Yes      |  |  |  |  |  |
| Grid monitoring                | Yes      |  |  |  |  |  |
| Anti-Islanding protection      | Yes      |  |  |  |  |  |
| Temperature protection         | Yes      |  |  |  |  |  |
| Integrated DC switch           | Optional |  |  |  |  |  |

### General Data

General Data

|                                     |                                                                                                                                                      |                                      |                    |                                   |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------|-----------------------------------|
| Dimensions (W*H*D)                  | 630mm*700mm*357mm                                                                                                                                    |                                      |                    |                                   |
| Weight                              | 61kg                                                                                                                                                 | 63kg                                 | 61kg               | 63kg                              |
| Topology                            | Transformerless                                                                                                                                      |                                      |                    |                                   |
| Self consumption                    | <1W (Night)                                                                                                                                          |                                      |                    |                                   |
| Operating ambient temperature range | -25~60°C                                                                                                                                             |                                      |                    |                                   |
| Relative humidity                   | 0~100%                                                                                                                                               |                                      |                    |                                   |
| Ingress protection                  | IP65                                                                                                                                                 |                                      |                    |                                   |
| Cooling concept                     | Natural convection                                                                                                                                   | Intelligent<br>redundant fan-cooling | Natural convection | Intelligent redundant fan-cooling |
| Max. operation altitude             | 4000m                                                                                                                                                |                                      |                    |                                   |
| Grid connection standard            | VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99,<br>EN 50549-1/-2, RD 1699, UNE 206006, UNE 206007-1, IEC61727, DEWA |                                      |                    |                                   |
| Safety/EMC standard                 | IEC 62109-1/-2, IEC62116, EN 61000-6-2/-4                                                                                                            |                                      |                    |                                   |

### Features

|               |                             |  |  |  |  |  |
|---------------|-----------------------------|--|--|--|--|--|
| DC connection | MC4                         |  |  |  |  |  |
| AC connection | OT Terminal connectors      |  |  |  |  |  |
| Display       | LCD, 2×20 Z.                |  |  |  |  |  |
| Communication | RS485; WiFi/GPRS (optional) |  |  |  |  |  |

**Certificate Number:** AZ 69023047

**Page:** 0001



## CERTIFICATE OF SUITABILITY

**Authorised marking:** TUV023047E

*This is to certify that TÜV Rheinland Australia Pty Ltd as accredited by JAS-ANZ in accordance with ISO/IEC Guide 65 has examined for compliance with certification standards, the electrical equipment described hereunder and authorises the certificate holder to affix the above mentioned mark to products of the same type; or the Regulatory Compliance Mark (RCM) provided that the requirements of all relevant parts of AS/NZS 4417 applicable to the article are fulfilled*

**CERTIFICATE HOLDER:**

Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafont), Industrial Park,  
Xiangshan Ningbo, Zhejiang 315712  
P. R. China

**DESCRIPTION OF EQUIPMENT**

**Declared class:** Non-declared

**Product:** Grid-Connected PV Inverter

**Trade Name / Manufacturer:** Ginlong

**Model Number:** Solis-3P5K-4G-AU; Solis-3P6K-4G-AU; Solis-3P8K-4G-AU;  
Solis-3P9K-4G-AU; Solis-3P10K-4G-AU; Solis-3P12K-4G;  
Solis-3P15K-4G; Solis-3P17K-4G; Solis-3P20K-4G.

**Ratings:** (Ratings info refer to CONTINIANION SHEET 1 - 2).

**Standard:** AS/NZS 4777.2:2015  
IEC 62109-1:2010  
IEC 62109-2:2011

**Issue Date:** 02/10/2018

**Expiry Date:** 02/10/2023

*Signed for and on behalf of TÜV Rheinland Australia Pty Ltd*

Billy Chu



Acc. No. Z2870404AA  
[www.jas-anz.org/register](http://www.jas-anz.org/register)

Certificate Number: AZ 69023047

Page: 0002

**CERTIFICATE OF SUITABILITY**

Authorised marking: TUV023047E

## CONTINUATION SHEET 1

## DESCRIPTION OF EQUIPMENT

## Ratings information:

## For all models:

Output voltage: 230/400V a.c., 3/N/PE, 50/60Hz, three-phase;

Class I, IP65, PD3, Transformerless;

Operating Temp.: -25°C to 60°C (&gt;45°C derating);

Overvoltage Category (OVC) for AC output: III;

Maximum input voltage: 1000V d.c., Independent MPPT: 2;

MPPT Voltage: 160-850V d.c.;

Overvoltage Category (OVC) for PV output: II.

## For model Solis-3P5K-4G-AU:

Input: I<sub>max</sub>: 22+11A, I(s.c.) input: 34.3+17.2Ad.c.;Output: P<sub>n</sub>: 5000W, Apparent Power: 5500VA, I<sub>max</sub>: 7.9A.

## For model Solis-3P6K-4G-AU:

Input: I<sub>max</sub>: 22+11A, I(s.c.) input: 34.3+17.2Ad.c.;Output: P<sub>n</sub>: 6000W, Apparent Power: 6600VA, I<sub>max</sub>: 9.5A.

## For model Solis-3P8K-4G-AU:

Input: I<sub>max</sub>: 22+22A, I(s.c.) input: 34.3+34.3Ad.c.;Output: P<sub>n</sub>: 8000W, Apparent Power: 8800VA, I<sub>max</sub>: 12.7A.

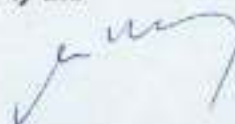
## For model Solis-3P9K-4G-AU:

Input: I<sub>max</sub>: 22+22A, I(s.c.) input: 34.3+34.3Ad.c.;Output: P<sub>n</sub>: 9000W, Apparent Power: 9900VA, I<sub>max</sub>: 14.2A.

Issue Date: 02/10/2018

Expiry Date: 02/10/2023

Signed for and on behalf of TÜV Rheinland Australia Pty Ltd

  
Billy ChuAcc. No. Z2876404AA  
[www.jas-anz.org/register](http://www.jas-anz.org/register)

Certificate Number: AZ 69023047

Page: 0003

**CERTIFICATE OF SUITABILITY**

Authorised marking: TUV023047E

**CONTINUATION SHEET 2****DESCRIPTION OF EQUIPMENT****Ratings information:**

For model Solis-3P10K-4G-AU:

Input: I<sub>max</sub>: 22+22A, I(s.c.) input: 34.3+34.3Ad.c.;Output: P<sub>n</sub>: 10000W, Apparent Power: 11000VA, I<sub>max</sub>: 15.9A.

For model Solis -3P12K-4G:

Input: I<sub>max</sub>: 22+22A, I(s.c.) input: 34.3+34.3Ad.c.;Output: P<sub>n</sub>: 12000W, Apparent Power: 13200VA, I<sub>max</sub>: 19.1A.

For model Solis -3P15K-4G:

Input: I<sub>max</sub>: 22+22A, I(s.c.) input: 34.3+34.3Ad.c.;Output: P<sub>n</sub>: 15000W, Apparent Power: 16500VA, I<sub>max</sub>: 23.8A.

For model Solis -3P17K-4G:

Input: I<sub>max</sub>: 22+22A, I(s.c.) input: 34.3+34.3Ad.c.;Output: P<sub>n</sub>: 17000W, Apparent Power: 18700VA, I<sub>max</sub>: 27.0A.

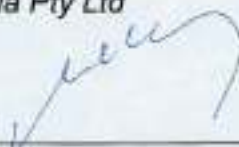
For model Solis -3P20K-4G:

Input: I<sub>max</sub>: 22+22A, I(s.c.) input: 34.3+34.3Ad.c.;Output: P<sub>n</sub>: 20000W, Apparent Power: 22000VA, I<sub>max</sub>: 31.8A.

Issue Date: 02/10/2018

Expiry Date: 02/10/2023

Signed for and on behalf of TÜV Rheinland Australia Pty Ltd

  
Billy ChuAcc. No. Z25TC04AA  
[www.ias-anz.org/register](http://www.ias-anz.org/register)

**C E R T I F I C A T E**  
of Conformity



Registration No.: AK 50421012 0001

Report No.: 50171233 001

**Holder:** Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo, Zhejiang 315712  
P. R. China

**Product:** PV-Inverter  
(Grid-connected PV Inverter)

**Identification:** Type Designation : Solis-3P5K-4G      Solis-3P6K-4G  
                                                 Solis-3P8K-4G      Solis-3P9K-4G  
                                                 Solis-3P10K-4G      Solis-3P12K-4G  
                                                 Solis-3P15K-4G      Solis-3P17K-4G  
                                                 Solis-3P20K-4G  
Serial Number : Engineering Samples  
Firmware version : V18  
Remark(s) : Refer to report 50171233 001 for details.

**Tested acc. to:** IEC 61727:2004  
IEC 62116:2014

The certificate of conformity refers to the above mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned above. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity.



Date 24.10.2018

  
Weichun Li

**TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg**

Ningbo Ginlong technologies Co.,  
Ltd.  
Zhang Kun

Date : 25.10.2018  
Our ref. : QJL 01  
Your ref.: Kun Zhang

No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo, Zhejiang 315712  
P. R. China

**Ref : AK Certificate of Conformity**

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : AK 50421012 0001  
Report No. : 50171233 001

Dear Zhang Kun,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body

  
Weichun Li

CC: Ningbo Ginlong technologies

Enclosure

证书的详细资料请登陆[www.certipedia.com](http://www.certipedia.com)查询, 或拨打我司客服热线800 999 3666 / 400 883 1300咨询

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50331629

Blatt *Page*  
0001

| Ihr Zeichen <i>Client Reference</i>                                                                                                                                                                          | Unser Zeichen <i>Our Reference</i> | Ausstellungsdatum <i>Date of Issue</i>                                                                                                                                                                          | <i>(day/mo/yr)</i> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 52109827                                                                                                                                                                                                     | 01-DJW-15083814 001                | 26.02.2016                                                                                                                                                                                                      |                    |
| <b>Genehmigungsinhaber <i>License Holder</i></b><br>Ningbo Ginlong technologies<br>Co., Ltd.<br>No.57 Jintong Road, Binhai,<br>(seafront) industrial Park, Xiangsha<br>Ningbo, Zhejiang 315712<br>P.R. China |                                    | <b>Fertigungsstätte <i>Manufacturing Plant</i></b><br>Ningbo Ginlong technologies<br>Co., Ltd.<br>No.57 Jintong Road, Binhai,<br>(seafront) industrial Park, Xiangshan<br>Ningbo, Zhejiang 315712<br>P.R. China |                    |

## Prüfzeichen *Test Mark*



## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

## Lizenzentgelte - Einheit *License Fee - Unit*

### PV-Wechselrichter (Grid-connected PV Inverter)

Type Designation : Solis-20K URE-20K GCI-20K-W 12  
Solapowa-20K Soltaro-20K  
Vmax PV [Vd.c.] : 1000  
Isc PV [Ad.c.] : 23.4/23.4/23.4/23.4  
MPP Voltage Range[Vd.c.] : 200-800  
Max. Input Current [Ad.c.] : 18/18/18/18  
Overvoltage Category (OVC) : II for PV

Rated Output Voltage[Va.c.] : 3~400  
Rated Output Frequency[Hz] : 50  
Rated Output Power[kW] : 20  
Max. Output Current[Aa.c.] : 33.3  
Power Factor : [-0.80, 0.80]  
Overvoltage Category (OVC) : III for AC mains

continued on page 0002

12

## ANLAGE (Appendix): 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

Tel +49 221 806-1371 e-mail: cert-validity@de.tuv.com  
Fax +49 221 806-3935 http://www.tuv.com/safety



Weichun Li

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50331629

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0002

| Ihr Zeichen <i>Client Reference</i> | Unser Zeichen <i>Our Reference</i> | Ausstellungsdatum <i>Date of Issue</i> |
|-------------------------------------|------------------------------------|----------------------------------------|
| 52109827                            | 01-DJW-15083814 001                | 26.02.2016<br>(day/month/year)         |

**Genehmigungsinhaber *License Holder***  
Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront) industrial Park, Xiangsha  
Ningbo, Zhejiang 315712  
P.R. China

**Fertigungsstätte *Manufacturing Plant***  
Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront) industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

## Prüfzeichen *Test Mark*



Bauart geprüft  
Sicherheit  
Regelmäßige  
Produktions-  
überwachung

www.tuv.com  
ID 1419032012

## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

**Zertifiziertes Produkt (Geräteidentifikation)**  
*Certified Product (Product Identification)*

**Lizenzentgelte - Einheit**  
*License Fee - Unit*

PV-Wechselrichter (Grid-connected PV Inverter)

5

as page 0001

Continuation

Type Designation

: Solis-25K URE-25K GCI-25K-W  
Solapowa-25K Soltaro-25K

Vmax PV [Vd.c.]

: 1000

Isc PV [Ad.c.]

: 23.4/23.4/23.4/23.4

MPP Voltage Range [Vd.c.]

: 200-800

Max. Input Current [Ad.c.]

: 18/18/18/18

Overvoltage Category (OVC)

: II for PV

Rated Output Voltage [Va.c.]

: 3~400

Rated Output Frequency [Hz]

: 50

Rated Output Power [kW]

: 25

Max. Output Current [Aa.c.]

: 41.7

Power Factor

: [-0.80, 0.80]

Overvoltage Category (OVC)

: III for AC mains

continued on page 0003

5

ANLAGE (Appendix): 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich beachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

**TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg**

Tel +49 221 806-1371 e-mail: cert-validity@de.tuv.com  
Fax +49 221 806-3935 http://www.tuv.com/safety



Weichun Li

# Zertifikat

# Certificate



Zertifikat Nr. Certificate No.  
R 50331629

Blatt Page  
0003

| Ihr Zeichen Client Reference | Unser Zeichen Our Reference | Ausstellungsdatum Date of Issue |
|------------------------------|-----------------------------|---------------------------------|
| 52109827                     | 01-DJW-15083814 001         | 26.02.2016 (day/mo/yr)          |

## Genehmigungsinhaber License Holder

Ningbo Ginlong technologies  
Co., Ltd.

No.57 Jintong Road, Binhai,  
(seafront) industrial Park, Xiangsha  
Ningbo, Zhejiang 315712  
P.R. China

## Fertigungsstätte Manufacturing Plant

Ningbo Ginlong technologies  
Co., Ltd.

No.57 Jintong Road, Binhai,  
(seafront) industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

## Prüfzeichen Test Mark



Bauart geprüft  
Sicherheit  
Regelmäßige  
Produktions-  
überwachung

www.tuv.com  
ID 1419032012

## Geprüft nach Tested acc. to

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

Zertifiziertes Produkt (Geräteidentifikation)  
Certified Product (Product Identification)

Lizenzentgelte - Einheit  
License Fee - Unit

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0001

5

Continuation

Type Designation : Solis-30K URE-30K GCI-30K-W  
Solapowa-30K Soltaro-30K

Vmax PV [Vd.c.] : 1000

Isc PV [Ad.c.] : 23.4/23.4/23.4/23.4

MPP Voltage Range[Vd.c.] : 200-800

Max. Input Current[Ad.c.] : 18/18/18/18

Overvoltage Category (OVC) : II for PV

Rated Output Voltage[Va.c.] : 3~400

Rated Output Frequency[Hz] : 50

Rated Output Power[kW] : 30

Max. Output Current[Aa.c.] : 47.8

Power Factor : [-0.80, 0.80]

Overvoltage Category (OVC) : III for AC mains

continued on page 0004

5

## ANLAGE (Appendix) : 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
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TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

Tel. +49 221 806-1371 e-mail: cert-validity@de.tuv.com  
Fax: +49 221 806-3935 http://www.tuv.com/safety



Weichun Li

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50331629

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0004

| Ihr Zeichen <i>Client Reference</i> | Unser Zeichen <i>Our Reference</i> | Ausstellungsdatum <i>Date of Issue</i> |
|-------------------------------------|------------------------------------|----------------------------------------|
| 52109827                            | 01-DJW-15083814 001                | 26.02.2016 <i>(day/mo/yr)</i>          |

## Genehmigungsinhaber *License Holder*

Ningbo Ginlong technologies  
Co., Ltd.

No.57 Jintong Road, Binhai,  
(seafront) industrial Park, Xiangsha  
Ningbo, Zhejiang 315712  
P.R. China

## Fertigungsstätte *Manufacturing Plant*

Ningbo Ginlong technologies  
Co., Ltd.

No.57 Jintong Road, Binhai,  
(seafront) industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

## Prüfzeichen *Test Mark*



## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

## Lizenzentgelte - Einheit *License Fee - Unit*

## PV-Wechselrichter (Grid-connected PV Inverter)

as page 0001

Continuation

Type Designation : Solis-36K-HV Solapowa-36K-HV

URE-36K-HV Soltaro-36K-HV

Vmax PV [Vd.c.] : 1000

Isc PV [Ad.c.] : 23.4/23.4/23.4/23.4

MPP Voltage Range[Vd.c.] : 200-800

Max. Input Current[Ad.c.] : 18/18/18/18

Overvoltage Category (OVC) : II for PV

Rated Output Voltage[Va.c.] : 3~480

Rated Output Frequency[Hz] : 50

Rated Output Power[kW] : 36

Max. Output Current[Aa.c.] : 47.8

Power Factor : [-0.80, 0.80]

Overvoltage Category (OVC) : III for AC mains

continued on page 0005

## ANLAGE (Appendix) : 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

Tel. +49 221 806-1371 e-mail cert-validity@de.tuv.com  
Fax +49 221 806-3935 http://www.tuv.com/safety



Weichun Li

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50331629

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0005

| Ihr Zeichen <i>Client Reference</i>                                                                                                                                                                          | Unser Zeichen <i>Our Reference</i> | Ausstellungsdatum <i>Date of Issue</i>                                                                                                                                                                          | <i>(day/mo/yr)</i> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 52109827                                                                                                                                                                                                     | 01-DJW-15083814 001                | 26.02.2016                                                                                                                                                                                                      |                    |
| <b>Genehmigungsinhaber <i>License Holder</i></b><br>Ningbo Ginlong technologies<br>Co., Ltd.<br>No.57 Jintong Road, Binhai,<br>(seafront) industrial Park, Xiangsha<br>Ningbo, Zhejiang 315712<br>P.R. China |                                    | <b>Fertigungsstätte <i>Manufacturing Plant</i></b><br>Ningbo Ginlong technologies<br>Co., Ltd.<br>No.57 Jintong Road, Binhai,<br>(seafront) industrial Park, Xiangshan<br>Ningbo, Zhejiang 315712<br>P.R. China |                    |

## Prüfzeichen *Test Mark*



## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

**Zertifiziertes Produkt (Geräteidentifikation)**  
*Certified Product (Product Identification)*

**Lizenzentgelte - Einheit**  
*License Fee - Unit*

**PV-Wechselrichter (Grid-connected PV Inverter)**

4

as page 0001  
Continuation

Type Designation : Solis-40K-HV Solapowa-40K-HV  
URE-40K-HV Soltaro-40K-HV  
Vmax PV [Vd.c.] : 1000  
Isc PV [Ad.c.] : 23.4/23.4/23.4/23.4  
MPP Voltage Range[Vd.c.] : 200-800  
Max. Input Current [Ad.c.] : 18/18/18/18  
Overvoltage Category (OVC) : II for PV

Rated Output Voltage [Va.c.] : 3-480  
Rated Output Frequency [Hz] : 50  
Rated Output Power [kW] : 40  
Max. Output Current [Aa.c.] : 48.1  
Power Factor : [-0.80, 0.80]  
Overvoltage Category (OVC) : III for AC mains

continued on page 0006

4

**ANLAGE (Appendix) : 1**

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
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**TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg**

Tel +49 221 806-1371 e-mail cert-validity@de.tuv.com  
Fax +49 221 806-3935 http://www.tuv.com/safety



**Weichun Li**

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50331629

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0006

Ihr Zeichen *Client Reference*  
52109827

Unser Zeichen *Our Reference*  
01-DJW-15083814 001

Ausstellungsdatum *Date of Issue*  
26.02.2016 (day/month/year)

## Genehmigungsinhaber *License Holder*

Ningbo Ginlong technologies  
Co., Ltd.

No.57 Jintong Road, Binhai,  
(seafront) industrial Park, Xiangsha  
Ningbo, Zhejiang 315712  
P.R. China

## Fertigungsstätte *Manufacturing Plant*

Ningbo Ginlong technologies  
Co., Ltd.

No.57 Jintong Road, Binhai,  
(seafront) industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

## Prüfzeichen *Test Mark*



Bauart geprüft  
Sicherheit  
Regelmäßige  
Produktions-  
überwachung

www.tuv.com  
ID 1419032012

## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

## Lizenzentgelte - Einheit *License Fee - Unit*

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0001  
Continuation

|                            |                                |
|----------------------------|--------------------------------|
| Protective Class           | : I                            |
| Enclosure Protection (IP)  | : IP65                         |
| Pollution degree (PD)      | : PD 2 (inside), PD3 (outside) |
| Altitude [m]               | : 2000                         |
| Operating Temperature [°C] | : -25 to 60 (> 45 derating)    |
| Type of Inverter           | : Non-isolated                 |

### Remark:

The installation has to be carried out according to the attached installation instruction.  
Any additional requirements in countries where the product is going to be marketed have to be considered additionally.

## ANLAGE (Appendix): 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
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TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

Tel: +49 221 806-1371 e-mail: cert-validity@de.tuv.com  
Fax: +49 221 806-3935 http://www.tuv.com/safety



Weichun Li

Ningbo Ginlong technologies Co.,  
Ltd.  
Zhang Kun

Date : 26.02.2016  
Our ref. : DJW 01  
Your ref.: 52109827

No.57 Jintong Road, Binhai,  
(seafront) industrial Park,  
Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

**Ref : R TÜV-Mark Approval**

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : R 50331629 0001  
Report No. : 15083814 001

Dear Zhang Kun,

The above specified equipment has been tested and found to be in accordance with the relevant requirements.

Please find enclosed your certificate as specified above.

If cancellation of the certificate is submitted by 15 November in a given year, no fee will be charged for the following year.

The certificate is issued with the reservation that the license holder applies all information required in § 6 of the ProdSG related to name and address of the manufacturer or his authorized representative / importer, including their respective contact addresses on the product prior to marketing of the product in the European Economic Area.

With kind regards,

Certification Body

  
Weichun Li

Enclosure

证书的详细资料请登陆[www.certipedia.com](http://www.certipedia.com)查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

# C E R T I F I C A T E



of Conformity  
Low Voltage Directive 2014/35/EU

Registration No.: AN 50332210 0001

Report No.: 15083814 001

Holder: Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront) industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

Product: PV-Inverter  
(Grid-connected PV Inverter)

Identification: Type Designation : Solis-20K URE-20K GCI-20K-W  
Solapowa-20K Soltaro-20K  
See more type designation in attachment 1.1

Serial Number : Engineering Sample  
Remark : Issued in conjunction with TÜV Rheinland  
license R 50331629 0001-0006.

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with Annex I of Council Directive 2014/35/EU, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex IV of the Directive.



Date 26.02.2016

  
Weichun Li

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

CE The CE marking may be used if all relevant and effective EC Directives are complied with. CE

**TÜV Rheinland**  
**LGA Products GmbH**  
Tillystraße 2, 90431 Nürnberg

1.1

Attachment to  
Registration No.: AN 50332210 0001  
Report No.: 15083814 001

Manufacturer: Ningbo Ginlong technologies  
Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafont) industrial Park, Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

**Scope:**

Solis-25K URE-25K GCI-25K-W  
Solapowa-25K Soltaro-25K

Solis-30K URE-30K GCI-30K-W  
Solapowa-30K Soltaro-30K

Solis-36K-HV Solapowa-36K-HV  
URE-36K-HV Soltaro-36K-HV

Solis-40K-HV Solapowa-40K-HV  
URE-40K-HV Soltaro-40K-HV

Cologne, 26.02.2016



  
Weichun Li

Ningbo Ginlong technologies Co.,  
Ltd.  
Zhang Kun

Date : 26.02.2016  
Our ref. : DJW 01  
Your ref.: 52109827

-  
No.57 Jintong Road, Binhai,  
(seafront) industrial Park,  
Xiangshan  
Ningbo, Zhejiang 315712  
P.R. China

Ref : AN Certificate of Conf. Low Voltage D.

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : AN 50332210 0001  
Report No. : 15083814 001

Dear Zhang Kun,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body

  
Weichun Li

Enclosure

证书的详细资料请登陆[www.certipedia.com](http://www.certipedia.com)查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询



Product Service

# Attestation of Conformity

No. N8A 17 10 86470 025

**Holder of Certificate:** **Ningbo Ginlong Technologies Co., Ltd.**

No.57 Jintong Road  
Binhai Industrial Park, Xiangshan  
315712 Ningbo, Zhejiang  
PEOPLE'S REPUBLIC OF CHINA

**Product:** **Converter  
Grid-Tied Inverter**

This Attestation of Conformity is issued on a voluntary basis according to the Low Voltage Directive 2014/35/EU relating to electrical equipment designed for use within certain voltage limits. It confirms that the listed equipment complies with the principal protection requirements of the directive and is based on the technical specifications applicable at the time of issuance. It refers only to the particular sample submitted for testing and certification. See also notes overleaf.

**Test report no.:** 704091716002-00

**Date,** 2017-11-03

( Zhengdong Ma )



After preparation of the necessary technical documentation as well as the EU conformity declaration the required CE marking can be affixed on the product. That declaration of conformity is issued under the sole responsibility of the manufacturer. Other relevant EU-directives have to be observed.

Page 1 of 3



Product Service

# Attestation of Conformity

No. N8A 17 10 86470 025

## Model(s):

Solis-40K, Solis-50K, Solis-50K-HV, Solis-60K-HV,  
Solapowa-40K, Solapowa-50K, Solapowa-50K-HV,  
Solapowa-60K-HV, Soltaro-40K, Soltaro-50K,  
Soltaro-50K-HV, Soltaro-60K-HV, URE-40K, URE-50K.

## Parameters:

|                                     |                     |
|-------------------------------------|---------------------|
| Max. input voltage:                 | See attachments     |
| MPP voltage range:                  | See attachments     |
| Max. input current:                 | See attachments     |
| Isc PV (absolute maximum):          | See attachments     |
| Rated grid voltage:                 | See attachments     |
| Rated grid frequency:               | 50/60Hz             |
| Max. AC output active power:        | See attachments     |
| Max. AC output apparent power:      | See attachment      |
| Max. continuous output current:     | See attachments     |
| Adjustable cos( $\phi$ ):           | -0.8...1...+0.8     |
| Protection class:                   | I                   |
| Degree of protection:               | IP65                |
| Overvoltage category:               | III(PV), III(MAINS) |
| Ambient temperature:                | -25... + 60°C       |
| Other ratings refer to attachments. |                     |

## Tested according to:

EN 62109-1:2010  
EN 62109-2:2011

# Attestation of Conformity No. N8A 17 10 86470 025



Product Service

Electrical ratings for various models:

| Models                          | Solis-40K<br>URE-40K<br>Solapowa-40K<br>Soltaro-40K | Solis-50K<br>URE-50K<br>Solapowa-50K<br>Soltaro-50K | Solis-50K-HV<br>Solapowa-50K-<br>HV<br>Soltaro-50K-HV | Solis-60K-HV<br>Solapowa-60K-<br>HV<br>Soltaro-60K-HV |
|---------------------------------|-----------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| <b>PV input ratings:</b>        |                                                     |                                                     |                                                       |                                                       |
| Max. input voltage:             | d.c. 1100 V                                         |                                                     |                                                       |                                                       |
| MPP voltage range:              | d.c. 200-1000V                                      |                                                     |                                                       |                                                       |
| Max. input current:             | d.c. 22*4A                                          | d.c. 28.5*4A                                        | d.c. 22*4A                                            | d.c. 28.5*4A                                          |
| Isc PV (absolute maximum):      | d.c. 34.3 A                                         | d.c. 44.5 A                                         | d.c. 34.3 A                                           | d.c. 44.5 A                                           |
| <b>AC output:</b>               |                                                     |                                                     |                                                       |                                                       |
| Rated grid voltage:             | a.c. 380V                                           | a.c. 380V                                           | a.c. 480/500V                                         | a.c. 480/500V                                         |
| Rated grid frequency:           | 50/60Hz                                             |                                                     |                                                       |                                                       |
| Max. AC output active power:    | 44000W                                              | 55000W                                              | 55000W                                                | 66000W                                                |
| Max. AC output apparent power:  | 44000VA                                             | 55000VA                                             | 55000VA                                               | 66000VA                                               |
| Max. Continuous output current: | a.c. 66.9 A                                         | a.c. 83.3 A                                         | a.c. 66.2 A                                           | a.c. 80 A                                             |

*Handwritten signature*

## 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              |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|--------------------|---------------|-----------------|-----------------|
| Input DC                                          |                                                                                                                                                                                                                                                            |               |               |                    |               |                 |                 |
| 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                                                                                                                                                                                                                                                        |               |               |                    |               |                 |                 |
| Output AC                                         |                                                                                                                                                                                                                                                            |               |               |                    |               |                 |                 |
| 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 / 60 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%                                                                                                                                                                                                                                                        |               |               |                    |               |                 |                 |
| Efficiency                                        |                                                                                                                                                                                                                                                            |               |               |                    |               |                 |                 |
| Max. efficiency                                   | 97.3%                                                                                                                                                                                                                                                      | 97.3%         |               | 97.6%              |               | 97.7%           |                 |
| EU efficiency                                     | 96.5%                                                                                                                                                                                                                                                      | 96.6%         |               | 97.1%              |               | 97.1%           |                 |
| Protection                                        |                                                                                                                                                                                                                                                            |               |               |                    |               |                 |                 |
| 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                |               |                 |                 |
| General Data                                      |                                                                                                                                                                                                                                                            |               |               |                    |               |                 |                 |
| Dimensions (W*H*D)                                | 330*371*161 mm                                                                                                                                                                                                                                             |               |               |                    |               |                 |                 |
| Weight                                            | 8.2 kg                                                                                                                                                                                                                                                     | 8.3 kg        |               | 8.9 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                                                                                                                                                                                                                     |               |               |                    |               |                 |                 |
| Features                                          |                                                                                                                                                                                                                                                            |               |               |                    |               |                 |                 |
| 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.

# CERTIFICATE of Conformity



Registration No.: AK 50577679 0001

Report No.: CN23NXBZ 001

**Holder:** Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Product:** PV-Inverter  
(Grid-Connected PV Inverter)

**Identification:** Type Designation: S6-GR1PxxK-S (xx=2.5, 3, 3.6, 4, 4.6, 5, 6)  
Serial Number : Engineering Samples  
Firmware Version: A1  
Remark : Refer to report CN23NXBZ 001 for details.

**Tested acc. to:** IEC 61727:2004  
IEC 62116:2014

The certificate of conformity refers to the above mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned above. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity.

Certification Body

Date 24.03.2023



  
Weichun Li

**TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg**

Ginlong technologies Co., Ltd.  
Qingying Cui

Date : 06.04.2023  
Our ref. : Jiangyi 01  
Your ref.: Qingying Cui

No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Ref : R TÜV-Bauart-Zeichen o. Akkred. Nr.**

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : R 50580695 0001  
Report No. : CN23ML60 001

Dear Qingying Cui,

The above specified equipment has been tested and found to be in accordance with the relevant requirements.

Please find enclosed your certificate as specified above.

If cancellation of the certificate is submitted by 15 November in a given year, no fee will be charged for the following year.

The certificate is issued with the reservation that the license holder applies all information required in § 6 of the ProdSG related to name and address of the manufacturer or his authorized representative / importer, including their respective contact addresses on the product prior to marketing of the product in the European Economic Area. In case you have a change regarding your involved local representative for the certificate, please inform us in due time.

With kind regards,

Certification Body



Bruce Li

Enclosure

证书的详细资料请登陆[www.certipedia.com](http://www.certipedia.com)查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

# Zertifikat

# Certificate



**Zertifikat Nr. Certificate No.**  
R 50580695

**Blatt Sheet**  
0001

**Ihr Zeichen Client Reference**  
Qingying Cui

**Unser Zeichen Our Reference**  
01-Jiangyi-CN23ML60 001

**Ausstellungsdatum**  
06.04.2023

**Date of Issue**  
(day/mo/yr)

**Genehmigungsinhaber License Holder**

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafont), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Fertigungsstätte Manufacturing Plant**

Ginlong technologies Co., Ltd.  
No. 188 Jinkai Road, Binhai Industrial  
Park, Xiangshan, Ningbo,  
315712 Zhejiang  
P.R. China

**Prüfzeichen Test Mark**



Bauart geprüft  
Sicherheit  
Regelmäßige  
Produktions-  
überwachung

www.tuv.com  
ID 1111267338

**Geprüft nach Tested acc. to**

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

**Zertifiziertes Produkt (Geräteidentifikation)**  
**Certified Product (Product Identification)**

**Lizenzentgelte - Einheit**  
**License Fee - Unit**

PV-Wechselrichter (Grid-connected PV Inverter)

|                            |                                                                      |    |
|----------------------------|----------------------------------------------------------------------|----|
| Type Designation           | : 1) S6-GR1P2.5K-S 2) S6-GR1P3K-S<br>3) S6-GR1P3.6K-S 4) S6-GR1P4K-S | 13 |
| Isc PV [Ad.c.]             | : 22+22                                                              |    |
| Vmax PV [Vd.c.]            | : 550                                                                |    |
| Max. Input Current Ad.c.]  | : 16+16                                                              |    |
| MPP Voltage Range [Vd.c.]  | : 1) 50-550 2) 90-550<br>3) 90-550 4) 90-550                         |    |
| Overvoltage Category (OVC) | : II for PV                                                          |    |
| Rated Output Volt. [Va.c.] | : L+N+PE, 220/230                                                    |    |
| Rated Output Freq. [Hz]    | : 50/60                                                              |    |
| Max. Output Curr. [Aa.c.]  | : 1) 11.4 2) 13.6<br>3) 16 4) 18.2                                   |    |
| Rated Output Power [kW]    | : 1) 2.5 2) 3<br>3) 3.6 4) 4                                         |    |
| Power Factor               | : -0.8 to 0.8                                                        |    |
| Overvoltage Category (OVC) | : III for AC mains                                                   |    |

continued on page 0002

13

ANLAGE (Appendix): 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

**TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg**

http://www.tuv.com/safety E-mail: markcheck@tuv.com  
Fax: +49 221 806-3935

**Zertifizierungsstelle**

Bruce Li

**Bruce Li**

# Zertifikat

# Certificate



**Zertifikat Nr. Certificate No.**  
R 50580695

**Blatt Sheet**  
0002

**Ihr Zeichen Client Reference**  
Qingying Cui

**Unser Zeichen Our Reference**  
01-Jiangyi-CN23ML6O 001

**Ausstellungsdatum**  
06.04.2023

**Date of Issue**  
(day/mo/yr)

## Genehmigungsinhaber License Holder

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafont), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte Manufacturing Plant

Ginlong technologies Co., Ltd.  
No. 188 Jinkai Road, Binhai Industrial  
Park, Xiangshan, Ningbo,  
315712 Zhejiang  
P.R. China

## Prüfzeichen Test Mark



Bauart geprüft  
Sicherheit  
Regelmäßige  
Produktions-  
überwachung

www.tuv.com  
ID 1111267338

## Geprüft nach Tested acc. to

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product Identification)

## Lizenzentgelte - Einheit License Fee - Unit

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0001 continuation

|                            |                                                     |   |
|----------------------------|-----------------------------------------------------|---|
| Type Designation           | : 5) S6-GR1P4.6K-S 6) S6-GR1P5K-S<br>7) S6-GR1P6K-S | 3 |
| Isc PV [Ad.c.]             | : 22+22                                             |   |
| Vmax PV [Vd.c.]            | : 550                                               |   |
| Max. Input Current Ad.c.]  | : 16+16                                             |   |
| MPP Voltage Range [Vd.c.]  | : 90-550                                            |   |
| Overvoltage Category (OVC) | : II for PV                                         |   |

|                            |                              |  |
|----------------------------|------------------------------|--|
| Rated Output Volt. [Va.c.] | : L+N+PE, 220/230            |  |
| Rated Output Freq. [Hz]    | : 50/60                      |  |
| Max. Output Curr. [Aa.c.]  | : 5) 20.9 6) 22.7<br>7) 27.3 |  |
| Rated Output Power [kW]    | : 5) 4.6 6) 5<br>7) 6        |  |
| Power Factor               | : -0.8 to 0.8                |  |
| Overvoltage Category (OVC) | : III for AC mains           |  |

continued on page 0003

ANLAGE (Appendix): 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

**TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg**

http://www.tuv.com/safety E-mail: markcheck@tuv.com  
Fax: +49 221 806-3935



**Zertifizierungsstelle**

Briere Li

**Bruce Li**

# Zertifikat

# Certificate



**Zertifikat Nr. Certificate No.**  
R 50580695

**Blatt Sheet**  
0003

**Ihr Zeichen Client Reference**  
Qingying Cui

**Unser Zeichen Our Reference**  
01-Jiangyi-CN23ML60 001

**Ausstellungsdatum**  
06.04.2023

**Date of Issue**  
(day/mo/yr)

**Genehmigungsinhaber License Holder**

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafont), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Fertigungsstätte Manufacturing Plant**

Ginlong technologies Co., Ltd.  
No. 188 Jinkai Road, Binhai Industrial  
Park, Xiangshan, Ningbo,  
315712 Zhejiang  
P.R. China

**Prüfzeichen Test Mark**



Bauart geprüft  
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Produktions-  
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www.tuv.com  
ID 1111267338

**Geprüft nach Tested acc. to**

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

**Zertifiziertes Produkt (Geräteidentifikation)**  
**Certified Product (Product Identification)**

**Lizenzentgelte - Einheit**  
**License Fee - Unit**

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0002 continuation

Protective Class : I  
Enclosure Protection (IP) : IP66  
Pollution degree (PD) : PD2 (inside), PD3 (outside)  
Altitude [m] : 4000  
Operating Temperature [°C] : -25 to 60 (>45 derating)  
Type of Inverter : Non-isolated

**Remark:**

The installation has to be carried out according to the  
Any additional requirements in countries where the product  
is going to be marketed have to be considered additionally.

**ANLAGE (Appendix): 1.0**

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

**TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg**

http://www.tuv.com/safety E-mail: markcheck@tuv.com  
Fax: +49 221 806-3935



**Zertifizierungsstelle**

Bruce Li

**Bruce Li**

## S6-GR1P(0.6-3.6)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
- Integrated Export Power Manager (EPM)
- AFCI protection, proactively reduces fire risk
- Compact and lightweight
- Friendly and adaptable connection to the grid

### Models:

S6-GR1P0.6K-M / 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(0.6-3.6)K-M

| Models                                            | 0.6K                                                                                                                                                                                                                                         | 0.7K          | 1K            | 1.5K          | 2K                 | 2.5K            | 3K            | 3.6K    |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|--------------------|-----------------|---------------|---------|
| Input DC                                          |                                                                                                                                                                                                                                              |               |               |               |                    |                 |               |         |
| Recommended max. PV power                         | 0.9 kW                                                                                                                                                                                                                                       | 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     |
| Output AC                                         |                                                                                                                                                                                                                                              |               |               |               |                    |                 |               |         |
| Rated output power                                | 0.6 kW                                                                                                                                                                                                                                       | 0.7 kW        | 1 kW          | 1.5 kW        | 2 kW               | 2.5 kW          | 3 kW          | 3.6 kW  |
| Max. apparent output power                        | 0.6 kVA                                                                                                                                                                                                                                      | 0.77 kVA      | 1.1 kVA       | 1.65 kVA      | 2.2 kVA            | 2.75 kVA        | 3.3 kVA       | 3.6 kVA |
| Max. output power                                 | 0.6 kW                                                                                                                                                                                                                                       | 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 / 60 Hz                                                                                                                                                                                                                                |               |               |               |                    |                 |               |         |
| Rated grid output current                         | 2.6 A                                                                                                                                                                                                                                        | 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                               | 2.6 A                                                                                                                                                                                                                                        | 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%                                                                                                                                                                                                                                          |               |               |               |                    |                 |               |         |
| Efficiency                                        |                                                                                                                                                                                                                                              |               |               |               |                    |                 |               |         |
| Max. efficiency                                   | 96.6%                                                                                                                                                                                                                                        |               |               | 96.6%         | 97.1%              | 97.1%           |               | 97.3%   |
| EU efficiency                                     | 95.3%                                                                                                                                                                                                                                        |               |               | 95.4%         | 96.4%              | 96.7%           |               | 96.8%   |
| Protection                                        |                                                                                                                                                                                                                                              |               |               |               |                    |                 |               |         |
| 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           |                 |               |         |
| General Data                                      |                                                                                                                                                                                                                                              |               |               |               |                    |                 |               |         |
| 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                                                                                                                                                                                                 |               |               |               |                    |                 |               |         |
| Features                                          |                                                                                                                                                                                                                                              |               |               |               |                    |                 |               |         |
| DC connection                                     | MC4 connector                                                                                                                                                                                                                                |               |               |               |                    |                 |               |         |
| AC connection                                     | Quick connection plug                                                                                                                                                                                                                        |               |               |               |                    |                 |               |         |
| Display                                           | LCD                                                                                                                                                                                                                                          |               |               |               |                    |                 |               |         |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS                                                                                                                                                                                                                 |               |               |               |                    |                 |               |         |

(1) Activation required.

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50516877

Blatt *Sheet*  
0001

Ihr Zeichen *Client Reference*  
Qingying Cui

Unser Zeichen *Our Reference*  
01-Pengmar-CN21SFB3 001

Ausstellungsdatum  
30.08.2021

*Date of Issue*  
(day/mo/yr)

## Genehmigungsinhaber *License Holder*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte *Manufacturing Plant*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Prüfzeichen *Test Mark*



## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation)

*Certified Product (Product Identification)*

## Lizenzentgelte - Einheit

*License Fee - Unit*

## PV-Wechselrichter (Grid-connected PV Inverter)

Type Designation : S6-GR1P0.7K-M-R S6-GR1P0.7K-M  
Vmax PV [Vd.c.] : 600  
Isc PV [Ad.c.] : 22  
MPP Voltage Range [Vd.c.] : 50-500  
Max. Input Current [Ad.c.] : 14  
Rated Output Power [W] : 700  
Max. Output Curr. [Aa.c.] : 4.4

13

Type Designation : S6-GR1P1K-M-R S6-GR1P1K-M  
Vmax PV [Vd.c.] : 600  
Isc PV [Ad.c.] : 22  
MPP Voltage Range [Vd.c.] : 50-500  
Max. Input Current [Ad.c.] : 14  
Rated Output Power [W] : 1000  
Max. Output Curr. [Aa.c.] : 5.2

Continued on page 0002

13

## ANLAGE (Appendix): 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

<http://www.tuv.com/safety> E-mail: [markcheck@tuv.com](mailto:markcheck@tuv.com)  
Fax: +49 221 806-3935



Bruce Li  
Bruce Li

**TÜV Rheinland (China) Ltd.**  
Member of TÜV Rheinland Group



Ginlong technologies Co., Ltd.  
Qingying Cui

Date : 17.09.2021  
Our ref. : Pengmar 01  
Your ref.: Qingying Cui

No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Ref : R TÜV-Bauart-Zeichen o. Akkred. Nr.**

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : R 50516877 0001  
Report No. : CN21SFB3 001

Dear Qingying Cui,

The above specified equipment has been tested and found to be in accordance with the relevant requirements.

Please find enclosed your certificate as specified above.

If cancellation of the certificate is submitted by 15 November in a given year, no fee will be charged for the following year.

The certificate is issued with the reservation that the license holder applies all information required in § 6 of the ProdSG related to name and address of the manufacturer or his authorized representative / importer, including their respective contact addresses on the product prior to marketing of the product in the European Economic Area.

With kind regards,

Certification Body

Bruce Li

Enclosure

证书的详细资料请登录<https://www.certipedia.com>查阅, 或拨打我司客服热线 800 999 3668/400 883 1300 咨询

**TÜV Rheinland (China) Ltd.**  
Room 301, 3F and Room 1203, 12F,  
Building 4, No. 15, Ronghua South Road,  
Beijing Economic-Technological  
Development Area, Beijing  
[www.chn.tuv.com](http://www.chn.tuv.com)

**莱茵检测认证服务(中国)有限公司**  
北京市北京经济技术开发区  
荣华南路15号院4号楼3层301室  
12层1203室  
邮编: 100176  
[www.chn.tuv.com](http://www.chn.tuv.com)

Tel: 86 10 8524 2222  
Fax: 86 10 8524 2200  
Hotline: 400 883 1300  
800 999 3668  
GC Service mailbox: [service-gc@tuv.com](mailto:service-gc@tuv.com)

电话: 86 10 8524 2222  
传真: 86 10 8524 2200  
热线: 400 883 1300  
800 999 3668  
大中华区服务邮箱: [service-gc@tuv.com](mailto:service-gc@tuv.com)

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50516877

Blatt *Sheet*  
0002

Ihr Zeichen *Client Reference*  
Qingying Cui

Unser Zeichen *Our Reference*  
01-Pengmar-CN21SFB3 001

Ausstellungsdatum  
17.09.2021

*Date of Issue*  
(day/mo/yr)

## Genehmigungsinhaber *License Holder*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte *Manufacturing Plant*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Prüfzeichen *Test Mark*



Bauart geprüft  
Sicherheit  
Regelmäßige  
Produktions-  
überwachung

www.tuv.com  
ID 1111244287

## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

## Lizenzentgelte - Einheit *License Fee - Unit*

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0001 continuation

4

Type Designation : S6-GR1P1.5K-M-R S6-GR1P1.5K-M  
Vmax PV [Vd.c.] : 600  
Isc PV [Ad.c.] : 22  
MPP Voltage Range[Vd.c.] : 50-500  
Max. Input Current[Ad.c.] : 14  
Rated Output Power[W] : 1500  
Max. Output Curr.[Aa.c.] : 8.1

Type Designation : S6-GR1P2K-M-R S6-GR1P2K-M  
Vmax PV [Vd.c.] : 600  
Isc PV [Ad.c.] : 22  
MPP Voltage Range[Vd.c.] : 80-500  
Max. Input Current[Ad.c.] : 14  
Rated Output Power[W] : 2000  
Max. Output Curr.[Aa.c.] : 10.5

Continued on page 0003

ANLAGE (Appendix): 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

http://www.tuv.com/safety E-mail: markcheck@tuv.com  
Fax: +49 221 806-3935



Bruce Li

Bruce Li

**TÜV Rheinland (China) Ltd.**  
Member of TÜV Rheinland Group



Ginlong technologies Co., Ltd.  
Qingying Cui

Date : 17.09.2021  
Our ref. : Pengmar 01  
Your ref.: Qingying Cui

No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Ref : R TÜV-Bauart-Zeichen o. Akkred. Nr.**

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : R 50516877 0002  
Report No. : CN21SFB3 001

Dear Qingying Cui,

The above specified equipment has been tested and found to be in accordance with the relevant requirements.

Please find enclosed your certificate as specified above.

If cancellation of the certificate is submitted by 15 November in a given year, no fee will be charged for the following year.

The certificate is issued with the reservation that the license holder applies all information required in § 6 of the ProdSG related to name and address of the manufacturer or his authorized representative / importer, including their respective contact addresses on the product prior to marketing of the product in the European Economic Area.

With kind regards,

Certification Body

Bruce Li

cc: Ginlong technologies Co., Ltd.

Enclosure

证书的详细资料请登录<https://www.certipedia.com>查阅, 或拨打我司客服热线 800 999 3668/400 883 1300 咨询

**TÜV Rheinland (China) Ltd.**  
Room 301, 3F and Room 1203, 12F,  
Building 4, No. 15, Ronghua South Road,  
Beijing Economic-Technological  
Development Area, Beijing  
[www.chn.tuv.com](http://www.chn.tuv.com)

莱茵检测认证服务(中国)有限公司  
北京市北京经济技术开发区  
荣华南路15号院4号楼3层301室  
12层1203室  
邮编: 100176  
[www.chn.tuv.com](http://www.chn.tuv.com)

Tel: 86 10 8524 2222  
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Hotline: 400 883 1300  
800 999 3668  
GC Service mailbox: [service-gc@tuv.com](mailto:service-gc@tuv.com)

电话: 86 10 8524 2222  
传真: 86 10 8524 2200  
热线: 400 883 1300  
800 999 3668  
大中华区服务邮箱: [service-gc@tuv.com](mailto:service-gc@tuv.com)

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50516877

Blatt *Sheet*  
0003

Ihr Zeichen *Client Reference*  
Qingying Cui

Unser Zeichen *Our Reference*  
01-Pengmar-CN21SFB3 001

Ausstellungsdatum  
17.09.2021

*Date of Issue*  
(day/mo/yr)

## Genehmigungsinhaber *License Holder*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte *Manufacturing Plant*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Prüfzeichen *Test Mark*



## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

## Lizenzentgelte - Einheit *License Fee - Unit*

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0002 continuation

4

Type Designation : S6-GR1P2.5K-M-R S6-GR1P2.5K-M  
Vmax PV [Vd.c.] : 600  
Isc PV [Ad.c.] : 22  
MPP Voltage Range[Vd.c.] : 80-500  
Max. Input Current[Ad.c.] : 14  
Rated Output Power[W] : 2500  
Max. Output Curr.[Aa.c.] : 13.3

Type Designation : S6-GR1P3K-M-R S6-GR1P3K-M  
Vmax PV [Vd.c.] : 600  
Isc PV [Ad.c.] : 22  
MPP Voltage Range[Vd.c.] : 80-500  
Max. Input Current[Ad.c.] : 14  
Rated Output Power[W] : 3000  
Max. Output Curr.[Aa.c.] : 15.7

Continued on page 0004

4

ANLAGE (Appendix): 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

<http://www.tuv.com/safety> E-mail: [markcheck@tuv.com](mailto:markcheck@tuv.com)  
Fax: +49 221 806-3935



Bruce Li

Ginlong technologies Co., Ltd.  
Qingying Cui

Date : 17.09.2021  
Our ref. : Pengmar 01  
Your ref.: Qingying Cui

No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Ref : R TÜV-Bauart-Zeichen o. Akkred. Nr.**

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : R 50516877 0003  
Report No. : CN21SFB3 001

Dear Qingying Cui,

The above specified equipment has been tested and found to be in accordance with the relevant requirements.

Please find enclosed your certificate as specified above.

If cancellation of the certificate is submitted by 15 November in a given year, no fee will be charged for the following year.

The certificate is issued with the reservation that the license holder applies all information required in § 6 of the ProdSG related to name and address of the manufacturer or his authorized representative / importer, including their respective contact addresses on the product prior to marketing of the product in the European Economic Area.

With kind regards,

Certification Body



Bruce Li

cc: Ginlong technologies Co., Ltd.

Enclosure

证书的详细资料请登录<https://www.certipedia.com>查阅,或拨打我司客服热线 800 999 3668/400 883 1300 咨询

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50516877

Blatt *Sheet*  
0004

Ihr Zeichen *Client Reference*  
Qingying Cui

Unser Zeichen *Our Reference*  
01-Pengmar-CN21SFB3 001

Ausstellungsdatum *Date of Issue*  
17.09.2021 (day/mo/yr)

## Genehmigungsinhaber *License Holder*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte *Manufacturing Plant*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Prüfzeichen *Test Mark*



## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

## Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

## Lizenzentgelte - Einheit *License Fee - Unit*

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0003 continuation

2

Type Designation : S6-GR1P3.6K-M-R S6-GR1P3.6K-M  
Vmax PV [Vd.c.] : 600  
Isc PV [Ad.c.] : 30  
MPP Voltage Range [Vd.c.] : 80-500  
Max. Input Current [Ad.c.] : 19  
Rated Output Power [W] : 3600  
Max. Output Curr. [Aa.c.] : 16

Continued on page 0005

2

## ANLAGE (Appendix): 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg  
<http://www.tuv.com/safety> E-mail: [markcheck@tuv.com](mailto:markcheck@tuv.com)  
Fax: +49 221 806-3935



*Bruce Li*  
Bruce Li

Ginlong technologies Co., Ltd.  
Qingying Cui

Date : 17.09.2021  
Our ref. : Pengmar 01  
Your ref.: Qingying Cui

No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Ref : R TÜV-Bauart-Zeichen o. Akkred. Nr.**

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : R 50516877 0004  
Report No. : CN21SFB3 001

Dear Qingying Cui,

The above specified equipment has been tested and found to be in accordance with the relevant requirements.

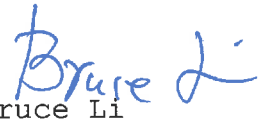
Please find enclosed your certificate as specified above.

If cancellation of the certificate is submitted by 15 November in a given year, no fee will be charged for the following year.

The certificate is issued with the reservation that the license holder applies all information required in § 6 of the ProdSG related to name and address of the manufacturer or his authorized representative / importer, including their respective contact addresses on the product prior to marketing of the product in the European Economic Area.

With kind regards,

Certification Body



Bruce Li

cc: Ginlong technologies Co., Ltd.

Enclosure

证书的详细资料请登录<https://www.certipedia.com>查阅, 或拨打我司客服热线 800 999 3668/400 883 1300 咨询

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50516877

Blatt *Sheet*  
0005

Ihr Zeichen *Client Reference*  
Qingying Cui

Unser Zeichen *Our Reference*  
01-Pengmar-CN21SFB3 001

Ausstellungsdatum  
17.09.2021

*Date of Issue*  
(day/mo/yr)

## Genehmigungsinhaber *License Holder*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Fertigungsstätte *Manufacturing Plant*

Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

## Prüfzeichen *Test Mark*



Bauart geprüft  
Sicherheit  
Regelmäßige  
Produktions-  
überwachung

www.tuv.com  
ID 1111244287

## Geprüft nach *Tested acc. to*

IEC 62109-1:2010  
IEC 62109-2:2011  
EN 62109-1:2010  
EN 62109-2:2011

Zertifiziertes Produkt (Geräteidentifikation)  
*Certified Product (Product Identification)*

Lizenzentgelte - Einheit  
*License Fee - Unit*

PV-Wechselrichter (Grid-connected PV Inverter)

as page 0004 continuation

Overvoltage Category (OVC) : II for PV  
Rated Output Volt. [Va.c.] : 1/N/PE, 220 V / 230 V  
Rated Output Freq. [Hz] : 50 / 60  
Power Factor : [-0.80, 0.80]  
Overvoltage Category (OVC) : III for AC mains  
Protective Class : Class I  
Ingress Protection (IP) : IP66  
Pollution Degree (PD) : PD 2 (inside) PD 3 (outside)  
Altitude [m] : 2000  
Operating Temperature [°C] : -25 to +60  
Type of Inverter : Non-isolated

### Remark(s) :

The installation has to be carried out according to the attached installation instruction.  
Any additional requirements in countries where the product is going to be marketed have to be considered additionally.

ANLAGE (Appendix) : 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.  
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

http://www.tuv.com/safety E-mail: markcheck@tuv.com  
Fax: +49 221 806-3935



Bruce Li  
Bruce Li

**TÜV Rheinland (China) Ltd.**  
Member of TÜV Rheinland Group



Ginlong technologies Co., Ltd.  
Qingying Cui

Date : 17.09.2021  
Our ref. : Pengmar 01  
Your ref.: Qingying Cui

No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Ref : R TÜV-Bauart-Zeichen o. Akkred. Nr.**

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : R 50516877 0005  
Report No. : CN21SFB3 001

Dear Qingying Cui,

The above specified equipment has been tested and found to be in accordance with the relevant requirements.

Please find enclosed your certificate as specified above.

If cancellation of the certificate is submitted by 15 November in a given year, no fee will be charged for the following year.

The certificate is issued with the reservation that the license holder applies all information required in § 6 of the ProdSG related to name and address of the manufacturer or his authorized representative / importer, including their respective contact addresses on the product prior to marketing of the product in the European Economic Area.

With kind regards,

Certification Body

Bruce Li

cc: Ginlong technologies Co., Ltd.

Enclosure

证书的详细资料请登录<https://www.certipedia.com>查阅, 或拨打我司客服热线 800 999 3668/400 883 1300 咨询

**TÜV Rheinland (China) Ltd.**  
Room 301, 3F and Room 1203, 12F,  
Building 4, No. 15, Ronghua South Road,  
Beijing Economic-Technological  
Development Area, Beijing  
[www.chn.tuv.com](http://www.chn.tuv.com)

莱茵检测认证服务(中国)有限公司  
北京市北京经济技术开发区  
荣华南路15号院4号楼3层301室  
12层1203室  
邮编: 100176  
[www.chn.tuv.com](http://www.chn.tuv.com)

Tel: 86 10 8524 2222  
Fax: 86 10 8524 2200  
Hotline: 400 883 1300  
800 999 3668  
GC Service mailbox: [service-gc@tuv.com](mailto:service-gc@tuv.com)

电话: 86 10 8524 2222  
传真: 86 10 8524 2200  
热线: 400 883 1300  
800 999 3668  
大中华区服务邮箱: [service-gc@tuv.com](mailto:service-gc@tuv.com)

# Compliance Document

No. D 086470 0114 Rev. 00

**Holder of Certificate:** **Ginlong Technologies Co., Ltd.**

No.57 Jintong Road  
Binhai Industrial Park, Xiangshan  
315712 Ningbo, Zhejiang  
PEOPLE'S REPUBLIC OF CHINA

**Product:** **Converter  
(PV-Inverter)**

This Compliance document confirms the compliance with the listed standards on a voluntary basis. It refers only to the sample submitted for testing and certification and does not certify the quality or safety of the serial products. For details see: [www.tuvsud.com/ps-cert](http://www.tuvsud.com/ps-cert)

**Test report no.:** 64772228006301

**Date,** 2022-06-08



( Tony Liu )

# Compliance Document

No. D 086470 0114 Rev. 00

**Model(s):**

S6-GR1P3.6K-M, S6-GR1P3K-M, S6-GR1P2.5K-M, S6-GR1P2K-M, S6-GR1P1.5K-M, S6-GR1P1K-M, S6-GR1P0.7K-M, S6-GR1P3.6K-M-R, S6-GR1P3K-M-R, S6-GR1P2.5K-M-R, S6-GR1P2K-M-R, S6-GR1P1.5K-M-R, S6-GR1P1K-M-R, S6-GR1P0.7K-M-R

**Trade name:**

**solis**



# Compliance Document

No. D 086470 0114 Rev. 00

## Parameters:

| Model:                                               | S6-GR1P0.7K-M<br>S6-GR1P0.7K-M-R | S6-GR1P1K-M<br>S6-GR1P1K-M-R | S6-GR1P1.5K-M<br>S6-GR1P1.5K-M-R |
|------------------------------------------------------|----------------------------------|------------------------------|----------------------------------|
| INPUT                                                |                                  |                              |                                  |
| V <sub>MAX</sub> PV [Vdc]                            | 600                              |                              |                                  |
| I <sub>SC</sub> PV[A]                                | 22                               |                              |                                  |
| MPP Voltage Range V <sub>MPP</sub> [Vdc]             | 50-500                           |                              |                                  |
| Max. Input Current I <sub>max</sub> [A]              | 14                               |                              |                                  |
| MPP Full Power Voltage Range [Vdc]                   | 66-500                           | 94-500                       | 141-500                          |
| Start PV Voltage [Vdc]                               | 60                               |                              |                                  |
| Backfeed Current [A]                                 | 0                                |                              |                                  |
| Overvoltage Category (OVC)                           | II                               |                              |                                  |
| OUTPUT                                               |                                  |                              |                                  |
| Rated Output Voltage U <sub>r</sub> [Vac]            | 1/N/PE, 220/230V                 |                              |                                  |
| Normal Operating Voltage Range U <sub>n</sub> [Vac]  | 176-253V/184-264V                |                              |                                  |
| Rated Output Frequency F <sub>NETZ</sub> [Hz]        | 50/60                            |                              |                                  |
| Normal Operating Frequency Range F <sub>n</sub> [Hz] | 45-55Hz/55-65Hz                  |                              |                                  |
| Rated Output Power P <sub>E</sub> [W]                | 700                              | 1000                         | 1500                             |
| Max. Output Power P <sub>E</sub> <sub>max</sub> [W]  | 800                              | 1100                         | 1700                             |
| Max. Output Current I <sub>max</sub> [A]             | 4.4                              | 5.2                          | 8.1                              |
| Power Factor cosφ [λ]                                | -0.8, 0.8                        |                              |                                  |
| Standby Power Consumption [W]                        | < 1                              |                              |                                  |
| Night Power Consumption [W]                          | < 1                              |                              |                                  |
| THD [V / I] (100% full power)                        | < 3%                             |                              |                                  |
| Acoustic Noise [dB]                                  | < 20                             |                              |                                  |
| Overvoltage Category (OVC)                           | III                              |                              |                                  |
| SYSTEM                                               |                                  |                              |                                  |
| Protective Class                                     | I                                |                              |                                  |
| Enclosure Protection (IP)                            | IP66                             |                              |                                  |
| Operating Temperature Range [°C]                     | -25 to +60                       |                              |                                  |
| Pollution degree (PD)                                | PD2                              |                              |                                  |
| Altitude [m]                                         | 2000                             |                              |                                  |
| Array Insulation Resistance Detection [Ω]            | 200K                             |                              |                                  |
| The accuracy of resistance measurement [%]           | < 10                             |                              |                                  |

|                                                      |                              |                                  |
|------------------------------------------------------|------------------------------|----------------------------------|
| Model:                                               | S6-GR1P2K-M<br>S6-GR1P2K-M-R | S6-GR1P2.5K-M<br>S6-GR1P2.5K-M-R |
| INPUT                                                |                              |                                  |
| V <sub>MAX</sub> PV [Vdc]                            | 600                          |                                  |
| I <sub>SC</sub> PV[A]                                | 22                           |                                  |
| MPP Voltage Range V <sub>MPP</sub> [Vdc]             | 80-500                       |                                  |
| Max. Input Current I <sub>max</sub> [A]              | 14                           |                                  |
| MPP Full Power Voltage Range [Vdc]                   | 187-500                      | 234-500                          |
| Start PV Voltage [Vdc]                               | 90                           |                                  |
| Backfeed Current [A]                                 | 0                            |                                  |
| Overvoltage Category (OVC)                           | II                           |                                  |
| OUTPUT                                               |                              |                                  |
| Rated Output Voltage U <sub>r</sub> [Vac]            | 1/N/PE, 220/230V             |                                  |
| Normal Operating Voltage Range U <sub>n</sub> [Vac]  | 176-253V/184-264V            |                                  |
| Rated Output Frequency F <sub>NETZ</sub> [Hz]        | 50/60                        |                                  |
| Normal Operating Frequency Range F <sub>n</sub> [Hz] | 45-55Hz/55-65Hz              |                                  |
| Rated Output Power P <sub>E</sub> [W]                | 2000                         | 2500                             |
| Max. Output Power P <sub>E</sub> <sub>max</sub> [W]  | 2200                         | 2800                             |
| Max. Output Current I <sub>max</sub> [A]             | 10.5                         | 13.3                             |

# Compliance Document

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|                                                    |            |
|----------------------------------------------------|------------|
| Power Factor $\cos\phi$ [ $\lambda$ ]              | -0.8, 0.8  |
| Standby Power Consumption [W]                      | < 1        |
| Night Power Consumption [W]                        | < 1        |
| THD [V / I] (100% full power)                      | < 3%       |
| Acoustic Noise [dB]                                | < 20       |
| Overvoltage Category (OVC)                         | III        |
| SYSTEM                                             |            |
| Protective Class                                   | I          |
| Enclosure Protection (IP)                          | IP66       |
| Operating Temperature Range [ $^{\circ}\text{C}$ ] | -25 to +60 |
| Pollution degree (PD)                              | PD2        |
| Altitude [m]                                       | 2000       |
| Array Insulation Resistance Detection [ $\Omega$ ] | 200K       |
| The accuracy of resistance measurement [%]         | < 10       |

|                                                      |                              |                                  |
|------------------------------------------------------|------------------------------|----------------------------------|
| Model:                                               | S6-GR1P3K-M<br>S6-GR1P3K-M-R | S6-GR1P3.6K-M<br>S6-GR1P3.6K-M-R |
| INPUT                                                |                              |                                  |
| V <sub>MAX</sub> PV [Vdc]                            | 600                          |                                  |
| I <sub>SC</sub> PV[A]                                | 22                           | 30                               |
| MPP Voltage Range V <sub>MPP</sub> [Vdc]             | 80-500                       |                                  |
| Max. Input Current I <sub>max</sub> [A]              | 14                           | 19                               |
| MPP Full Power Voltage Range [Vdc]                   | 281-500                      | 195-500                          |
| Start PV Voltage [Vdc]                               | 90                           |                                  |
| Backfeed Current [A]                                 | 0                            |                                  |
| Overvoltage Category (OVC)                           | II                           |                                  |
| OUTPUT                                               |                              |                                  |
| Rated Output Voltage Ur [Vac]                        | 1/N/PE, 220/230V             |                                  |
| Normal Operating Voltage Range Un [Vac]              | 176-253V/184-264V            |                                  |
| Rated Output Frequency F <sub>NETZ</sub> [Hz]        | 50/60                        |                                  |
| Normal Operating Frequency Range F <sub>n</sub> [Hz] | 45-55Hz/55-65Hz              |                                  |
| Rated Output Power P <sub>E</sub> [W]                | 3000                         | 3600                             |
| Max. Output Power P <sub>E</sub> max [W]             | 3300                         | 3600                             |
| Max. Output Current I <sub>max</sub> [A]             | 15.7                         | 16                               |
| Power Factor cosφ [λ]                                | -0.8, 0.8                    |                                  |
| Standby Power Consumption [W]                        | < 1                          |                                  |
| Night Power Consumption [W]                          | < 1                          |                                  |
| THD [V / I] (100% full power)                        | < 3%                         |                                  |
| Acoustic Noise [dB]                                  | < 20                         |                                  |
| Overvoltage Category (OVC)                           | III                          |                                  |
| SYSTEM                                               |                              |                                  |
| Protective Class                                     | I                            |                                  |
| Enclosure Protection (IP)                            | IP66                         |                                  |
| Operating Temperature Range [°C]                     | -25 to +60                   |                                  |
| Pollution degree (PD)                                | PD2                          |                                  |
| Altitude [m]                                         | 2000                         |                                  |
| Array Insulation Resistance Detection [Ω]            | 200K                         |                                  |
| The accuracy of resistance measurement [%]           | < 10                         |                                  |

**Tested  
according to:**

EN IEC 61000-3-11:2019  
EN 61000-3-12:2011

# CERTIFICATE

of Conformity  
Low Voltage Directive 2014/35/EU

Registration No.: AN 50519078 0001

Report No.: CN21SFB3 001

**Holder:** Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Product:** PV-Inverter  
(Grid-connected PV Inverter)

**Identification:** Type Designation: S6-GR1P3.6K-M S6-GR1P3K-M S6-GR1P2.5K-M  
S6-GR1P2K-M S6-GR1P1.5K-M S6-GR1P1K-M  
S6-GR1P0.7K-M S6-GR1P3.6K-M-R S6-GR1P3K-M-R  
S6-GR1P2.5K-M-R S6-GR1P2K-M-R S6-GR1P1.5K-M-R  
S6-GR1P1K-M-R S6-GR1P0.7K-M-R  
Serial Number : Engineering Sample  
Remark(s) : Issued in conjunction with TÜV Rheinland  
license R 50516877 0001-0005

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with Annex I of Council Directive 2014/35/EU, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex IV of the Directive.

Date 17.09.2021



*Bruce Li*  
Bruce Li

**TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg**

**TÜV Rheinland (China) Ltd.**  
Member of TÜV Rheinland Group



Ginlong technologies Co., Ltd.  
Qingying Cui

Date : 17.09.2021  
Our ref. : DJW 01  
Your ref.: Qingying Cui

No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Ref : AN Certificate of Conf. Low Voltage D.**

Type of Equipment : Grid-connected PV Inverter  
Model Designation : See Certificate  
Certificate No. : AN 50519078 0001  
Report No. : CN21SFB3 001

Dear Qingying Cui,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body

  
Bruce Li

Enclosure

证书的详细资料请登录<https://www.certipedia.com>查阅, 或拨打我司客服热线 800 999 3668/400 883 1300 咨询

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莱茵检测认证服务(中国)有限公司  
北京市北京经济技术开发区  
荣华南路15号院4号楼3层301室  
12层1203室  
邮编: 100176  
[www.chn.tuv.com](http://www.chn.tuv.com)

Tel: 86 10 8524 2222  
Fax: 86 10 8524 2200  
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热线: 400 883 1300  
800 999 3668  
大中华区服务邮箱: [service-gc@tuv.com](mailto:service-gc@tuv.com)

**CERTIFICATE**  
of Conformity  
EC Council Directive 2014/30/EU  
Electromagnetic Compatibility

Registration No.: AE 50555891 0001

Report No.: 50084876 012

Holder: Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

Product: PV-Inverter  
(Grid-connected PV Inverter)

Identification: See type designations in attachment 1.1  
Serial No.: n.a.  
Remark: Refer to test reports 50084876 001-012 for details.  
Continued on page 0002.

Tested acc. to: EN IEC 61000-6-4:2019  
EN IEC 61000-6-3:2021  
EN IEC 61000-6-2:2019  
EN IEC 61000-6-1:2019  
EN 55011:2016+A1+A11+A2

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex I of Council Directive 2014/30/EU. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to the a.m. Directive.

Certification Body

Date 19.08.2022



Xinhua Lu  
Xinhua Lu

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

**CERTIFICATE**  
**of Conformity**  
**EC Council Directive 2014/30/EU**  
**Electromagnetic Compatibility**

**Registration No.:** AE 50555891 0002

**Report No.:** 50084876 012

**Holder:** Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Product:** PV-Inverter  
(Grid-connected PV Inverter)

**Identification:** See type designations in attachment 1.1  
Serial No.: n.a.  
Remark: Refer to test reports 50084876 001-012 for details.  
Refer to page 0001.

**Tested acc. to:** IEC 61000-6-4:2018  
IEC 61000-6-3:2020  
IEC 61000-6-2:2016  
IEC 61000-6-1:2016  
CISPR 11:2015+A1+A2

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex I of Council Directive 2014/30/EU. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to the a.m. Directive.

**Date** 19.08.2022



**Certification Body**

Xinhua Lu

Xinhua Lu

**TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg**

**TÜV Rheinland**  
**LGA Products GmbH**  
**Tillystraße 2, 90431 Nürnberg**

1.1

**Attachment to**  
**Registration No.:** AE 50555891 0001  
**Report No.:** 50084876 012

**Manufacturer:** Ginlong technologies Co., Ltd.  
No.57 Jintong Road, Binhai,  
(seafront), Industrial Park,  
Xiangshan Ningbo  
315712 Zhejiang  
P.R. China

**Scope:**

|                    |                    |                    |
|--------------------|--------------------|--------------------|
| type designation:  |                    |                    |
| Solis-mini-700-4G  | S5-GR1P0.7K-M      | S6-GR1P0.7K-M      |
| S6-GR1P0.7K-M-R    | Solis-mini-1000-4G | S5-GR1P1K-M        |
| S6-GR1P1K-M        | S6-GR1P1K-M-R      | Solis-mini-1500-4G |
| S5-GR1P1.5K-M      | S6-GR1P1.5K-M      | S6-GR1P1.5K-M-R    |
| Solis-mini-2000-4G | S5-GR1P2K-M        | S6-GR1P2K-M        |
| S6-GR1P2K-M-R      | Solis-mini-2500-4G | S5-GR1P2.5K-M      |
| S6-GR1P2.5K-M      | S6-GR1P2.5K-M-R    | Solis-mini-3000-4G |
| S5-GR1P3K-M        | S6-GR1P3K-M        | S6-GR1P3K-M-R      |
| Solis-mini-3600-4G | S5-GR1P3.6K-M      | S6-GR1P3.6K-M      |
| S6-GR1P3.6K-M-R    | S6-GR1P1K-M-LV     |                    |
| S6-GR1P0.6K-M      |                    |                    |

**Date: 2022-08-19**



**Xinhua Lu**

## EU Declaration of Conformity – CE

This is to declare that the products listed below have been manufactured according to the following EU directives:

- **Low Voltage Directive 2014/35/EU**
- **Electromagnetic Compatibility 2014/30/EU**
- **2011/65/EU RoHS Directive**

|                     |                                                                                                                                                                                                                                                                                                                                                  |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Manufacturer</b> | Ginlong (Solis) Technologies Co., Ltd.                                                                                                                                                                                                                                                                                                           |
| <b>Address</b>      | NO.57 Jintong Road, Binhai Industrial Park, Xiangshan Ningbo, Zhejiang, 315712, China                                                                                                                                                                                                                                                            |
| <b>Product Type</b> | Grid-connected PV Inverter                                                                                                                                                                                                                                                                                                                       |
| <b>Model</b>        | Solis-mini-700-4G, Solis-mini-1000-4G, Solis-mini-1500-4G, Solis-mini-2000-4G, Solis-mini-2500-4G, Solis-mini-3000-4G, Solis-mini-3600-4G, S5-GR1P0.7K-M, S5-GR1P1K-M, S5-GR1P1.5K-M, S5-GR1P2K-M, S5-GR1P2.5K-M, S5-GR1P3K-M, S5-GR1P3.6K-M, 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, |

The following standards have been applied according to the aforementioned directives:

### Low Voltage Directive 2014/35/EU

EN 62109-1:2010, EN 62109-2:2011

### Electromagnetic Compatibility 2014/30/EU

EN 55011:2016

EN 61000-6-1:2007, EN 61000-6-2:2005, EN 61000-6-3:2007+A1, EN 61000-6-4:2007+A1

IEC 61000-3-2:2018+A1, IEC 61000-3-3:2013+A1+A2

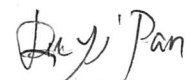
### RoHS Directive 2011/65/EU

EN 63000:2018

All modifications to this declaration will be confirmed by Ginlong, otherwise this declaration will no longer be valid. The product defined here-in was manufactured under the condition of the EU directive and standards. Product responsibility is within the manufacturer's guarantee and this declaration of conformity is issued under the responsibility of the manufacturer.

Ningbo, 2.Nov.2021

锦浪科技股份有限公司  
GINLONG TECHNOLOGIES CO.,LTD.

  
PanRuyi

Certification Supervisor