



Product Service

# CERTIFICATE

No. B 15 05 86470 006

**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-Connected Photovoltaic 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.:** 704091364701-01**Valid until:** 2020-05-20

**Date,** 2015-05-26  
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*Zhengdong Ma*  
( Zhengdong Ma )



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**CERTIFICATE****No. B 15 05 86470 006****Model(s):**

GCI-6K, GCI-10K, GCI-15K, GCI-6K-W,  
GCI-10K-W, GCI-15K-W, Solis-6K, Solis-10K,  
Solis-15K, EKO-6K, EKO-10K, EKO-15K,  
Solapowa-6K, Solapowa-10K, Solapowa-15K.

**Parameters:**

UDC max:	1000 Vdc
Rated output voltage:	3 ~ 400 V
Rated output frequency:	50 Hz
PF:	1 (at rated power)
Protection class:	I
Degree of protection:	IP65
Overvoltage category:	III[MAINS], II[PV]
Ambient temperature:	-25°C to +60°C

**Tested  
according to:**

EN 62109-1:2010  
IEC 62109-1:2010  
EN 62109-2:2011  
IEC 62109-2:2011  
DIN VDE 0126-1-1 (VDE V 0126-1-1):2013

**Production  
Facility(ies):**

86470

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Model	GCI-6K	GCI-10K	GCI-15K	GCI-6K W	GCI-10K W	GCI-15K W
Parameters						
PDC max (W)	6900	11500	16000	6900	11500	16000
VDC MPPT range (V d.c.)	200 – 800	200 – 800	200 – 800	200 – 800	200 – 800	200 – 800
IDC max (A d.c.)	15/15	18/18	18/18	15/15	18/18	18/18
I <sub>pv</sub> max short circuit (A d.c.)	16.5/16.5	19.8/19.8	19.8/19.8	16.5/16.5	19.8/19.8	19.8/19.8
PAC max (W)	6000	10000	15000	6000	10000	15000
IAC norm (A)	8.7	14.5	21.7	8.7	14.5	21.7
IAC max (A)	10.5	16	24	10.5	16	24

Model	Solis-6K	Solis-10K	Solis-15K	FKO-6K	FKO-10K	FKO-15K
Parameters						
PDC max (W)	6900	11500	16000	6900	11500	16000
VDC MPPT range (V d.c.)	200 – 800	200 – 800	200 – 800	200 – 800	200 – 800	200 – 800
IDC max (A d.c.)	15/15	18/18	18/18	15/15	18/18	18/18
I <sub>pv</sub> max short circuit (A d.c.)	16.5/16.5	19.8/19.8	19.8/19.8	16.5/16.5	19.8/19.8	19.8/19.8
PAC max (W)	6000	10000	15000	6000	10000	15000
IAC norm (A)	8.7	14.5	21.7	8.7	14.5	21.7
IAC max (A)	10.5	16	24	10.5	16	24

Model	Solapowa-6K	Solapowa-10K	Solapowa-15K
Parameters			
PDC max (W)	6900	11500	16000
VDC MPPT range (V d.c.)	200 – 800	200 – 800	200 – 800
IDC max (A d.c.)	15/15	18/18	18/18
I <sub>pv</sub> max short circuit (A d.c.)	16.5/16.5	19.8/19.8	19.8/19.8
PAC max (W)	6000	10000	15000
IAC norm (A)	8.7	14.5	21.7
IAC max (A)	10.5	16	24



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Conditions of acceptability---

1. When installing the equipment, all requirements of the mentioned standards must be fulfilled.
2. In order to protect the installation against electrical and fire hazard, all branch circuits in an installation, switch gear, cables etc., must be short-circuit and over-current protected according to the national/international regulations.
3. When install PV generation system, double/reinforced insulation cable required with mechanical protection.  
Recommended conductor cross-section area and installation method, refer to installation manual:  
Recommended PV input cables: copper, PV+&PV-, 2,5 mm<sup>2</sup> - 4 mm<sup>2</sup>@Max. 60°C ambient temperature.  
Recommended AC output cables: copper, L1, L2, L3, N, PE, cross-section refer to below table

Model	GCI-6K	GCI-10K	GCI-15K
cross-section(mm <sup>2</sup> )	6		
External AC output cable protection	25 A	32A	32A

All type of PV inverters with operating time of the type C circuit breaker or fuse is less than 5 seconds, wire installation method B2 according to EN 60204-1:2006, annex D: cable in conduit cable trunking system. Maybe use H07RN-F (cord designation 60245 IEC 66) for an ambient temperature of up to 40°C or less and use 90°C rough cable for ambient temperature between 40°C and 60°C. If any higher temperature environment used or for decrease the power loss in wire runway, it shall increase the conductor current carrying capacity and recalculation.

4. Maximum inverter backfeed current from grid to the array is 0A based on test/circuit topology analysis and manufacturer's declaration. And due to design, more than three strings can be connected to inverter, so backfeed current can form others strings to the fault string when short-circuit occurs, PV fuse need to be installed in end-system according to system requirement based on solar irradiation, local temperature and environment, e.g. ratings 1000V, 1.5lsc.

5. Serial – RS485 are used for telecommunication interface ports with circuitry intended for connection to a Network Environment 0 per manufacturer's instruction manual, according to CLC TR 62102. RS 485 circuit is classed to be as SELV, Only PELV or SELV voltages may be connected at RS 485 terminals.

6. The grid-connected inverter is intended to be used with appropriate PV-generator, switchgear, SPDs, distribution board, electrical protection components and other device to form complete end systems. Compliance with safety regulations depends upon installing and configuring inverter correctly, including using the specified emergency stop device adjacent to solar inverter. The unit must be installed only by professional assemblers who are familiar with requirements for safety and EMC. The assembler is responsible for ensuring that the end product or system complies with all the relevant laws in the country where it is to be used. Refer to instruction manual.

7. Additional equipment connected to the inverter must comply with the respective IEC, EN or ISO standards (e.g. IEC/EN 60950 for data processing equipment, IEC/EN 60439 for switchgear).

8. For safety reasons, install the emergency stop devices at station adjacent to solar inverter in the end-system. Pressing the stop function on the control panel of the inverter does not generate an emergency stop and separate the inverter from dangerous potential.

9. To allow maintenance of PV inverter, means of isolating the PV inverter from the DC side and the AC side shall be provided at the end-use application.

10. An RCD, type B according to IEC 60755, amendment 2 which is located between the inverter and the mains, shall be provided for fault protection by automatic disconnection of supply in the end-use application.

11. Not intended for use with connection to plug socket!

12. Island operation can be detected Independently for individual unit. For multiple units operation, the automatic disconnection device should receive break commands via an interface from another protection device with equivalent island network detection. A break command must trigger a break within 0.2 s. The protection device issuing the break signal and the interface must also fulfill the functional safety requirements.