



Ginlong Technologies Co., Ltd.

No. 57 Jintong Road,  
Binhai Industrial Park - Xiangshan  
Ningbo - Zhejiang Province, 315712 - P.R. China  
Tel: (+86) 574 6580 2188 - info@ginlong.com

**Dichiarazione di conformità alle prescrizioni della Norma CEI 0-16:2022-03**  
Declaration of Conformity to Requirements of the Standard CEI 0-16:2022-03

**TIPOLOGIA DI APPARATO CUI SI RIFERISCE LA DICHIARAZIONE:**  
Type of Device to Which This Declaration Refers:

DISPOSITIVO DI INTERFACCIA Interface Device	PROTEZIONE DI INTERFACCIA Interface Protection	DISPOSITIVO DI CONVERSIONE STATICA Static Conversion Device	DISPOSITIVO DI GENERAZIONE ROTANTE Rotary Generating Device
Si/Yes	Si/Yes	Si/Yes	No

COSTRUTTORE: Manufacturer	MODELLO DI INVERTER: Inverter Model	VERSIONE FIRMWARE: Firmware Version	NUMERO DI FASI (monofase/trifase) Number of Phase (Single/Three Phase)	POTENZA NOMINALE: Rated Power [W]
Ginlong Technologies Co., Ltd.  No. 57 Jintong Road, Binhai Industrial Park - Xiangshan Ningbo - Zhejiang Province, 315712 - P.R. China	Solis-80K-5G-PRO	A1 e superiore/and upper	Trifase/Three- Phase	80000
	Solis-100K-5G-PRO			100000
	Solis-110K-5G-PRO			110000

**NOTA: Il dispositivo è in grado di limitare la Idc allo 0,5% della corrente nominale.**  
Note: The device is capable to limit Idc to 0.5% of the rated current.

Esaminati i Fascicoli Prove n°CN23JRMK 001, emessi dal laboratorio TÜV Rheinland Product Service GmbH con accreditamento DAkKS (D-ZE-14169-01-02)  
Ai sensi degli articoli 46 e 47 del DPR 28 Dicembre 2000, n° 445, il sottoscritto Yiming Wang, in qualità di legale rappresentante di Ginlong Technologies Co., Ltd. - No. 57 Jintong Road - Binhai Industrial Park - Xiangshan - Ningbo - Zhejiang Province - China, dichiara che il prodotto indicato è conforme alle prescrizioni CEI-0-16: 2022-03.

Taken into account test report No. CN23JRMK 001 issued by test lab TÜV Rheinland certification and Testing(China) Co.,Ltd Guangzhou Branch with DAkKS accreditation (No. D-ZE-14169-01-02)  
According with the articles 46 and 47 of Italian DPR 28 December 2000, n° 445, the undersigned Yiming Wang, as legal representative of Ginlong Technologies Co., Ltd. - No. 57 Jintong Road - Binhai Industrial Park - Xiangshan - Ningbo - Zhejiang Province - China, hereby declares that the product complies with the requirements of CEI-0-16: 2022-03

DATA 26/05/2023  
DATE 26/05/2023

FIRMA LEGALE RAPPRESENTANTE  
SIGNATURE LEGAL REPRESENTATIVE



I hereby certify, that the above is the true signature, subscribed in my presence, of

**Mr. Yiming Wang, born on April 13, 1981, business address No.57 Jintong Road, Binhai Industrial Park, Xiangshan Ningbo, Zhejiang Province, China, identified himself by submission of his valid government-issued photo identification**

Acting on behalf of Ginlong Technologies Co., Ltd. as Chief Executive Officer under the document Dichiarazioni di conformit\_Declaration\_of  
\_Comformity\_CEI\_0-16\_2022-03\_Solis-(80-110)K-5G-PRO\_REV.  
00.

Grandall Law Firm (Beijing)

June 2nd, 2023



# CERTIFICATE of Conformity



Registration No.: **A3 50584024 0001**

Report No.: **CN23JRMK 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 : Solis-80K-5G-PRO Solis-100K-5G-PRO  
Solis-110K-5G-PRO  
Serial Number : Engineering Samples  
Firmware version : A1  
Remark(s) : Refer to report CN23JRMK 001 for details.

**Tested acc. to:** CEI 0-16:2022-03


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 **03.05.2023**

Durch die DAKKS nach  
DIN EN ISO/IEC 17065:2013  
akkreditierte Zertifizierungsstelle  
Die Akkreditierung gilt nur für den in der  
Urkundenanlage D-ZE-14169-01-02  
aufgeführten Akkreditierungsumfang.



Certification Body

  
Weichun Li

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

**OGGETTO:** Dichiarazione di conformità alla normativa CEI 0-16:2022-03

“Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti AT ed MT delle imprese distributrici di energia elettrica”

**SUBJECT:** Declaration of Conformity to CEI 0-16:2022-03

“Reference technical rules for the connection of active and passive consumers to the HV and MV electrical networks of distribution Company”

## Certificate No.: A3 50584024 0001

### TIPOLOGIA DI APPARATO A CUI SI RIFERISCE LA DICHIARAZIONE:

TYPE OF APPARATUS WHICH THE DECLARATION IS REFERRED TO:

GENERATORI SINCRONI Synchronous generators	GENERATORI ASINCRONI Asynchronous generators	GENERATORI STATICI FV Static generators PV	GENERATORI EOLICI FULL CONVERTER Full Power Wind Generators
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Titolare della licenza  
License Holder

**Ginlong technologies Co., Ltd.**

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

Modello/Tipo  
Model/Type

Solis-80K-5G-PRO

Solis-100K-5G-PRO

Solis-110K-5G-PRO

Potenza Attiva Nominata  
Nominal Power[W]

80000

100000

110000

Max. Potenza Apparente  
Maximum Apparent Power[VA]

88000

110000

121000

Numero di Fasi  
Number of phases

Tre fasi  
Three phases

Potenza massima  
dell'impianto di destinazione:  
Maximum power of the  
destination plant:

$P_{plant} < 400 \text{ kW}$

$P_{plant} \geq 400 \text{ kW}$

laboratorio di prova  
Test laboratory

TÜV Rheinland (Shanghai) Co., Ltd.  
Accreditation CNAS no.: L3038

Esaminati I Fascicoli Prove N.: CN23JRMK 001 emesso da TÜV Rheinland (Shanghai) S.r.l.  
Having assessed the Test Files N. CN23JRMK 001 issued by TÜV Rheinland (Shanghai) Co., Ltd.

Si dichiara che i prodotti indicati soddisfano i requisiti della CEI 0-16:2022-03 “Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti AT ed MT delle imprese distributrici di energia elettrica”

We declare that the products indicated meet the requirements laid down by CEI 0-16:2022-03 “Reference technical rules for the connection of active and passive consumers to the HV and MV electrical networks of distribution Company”

Validità della Dichiarazione  
Validity of the Declaration

Questa Dichiarazione è valida per i prodotti indicate, così come descritti nei Fascicoli citati. Nuovi requisiti o emendamenti a requisiti esistenti, così come modifiche al prodotto, possono implicare nuove verifiche e certificazioni.

This Declaration is valid only for the products indicated herein, as described in the Files mentioned. New requirements or amendment to existing ones, or modifications to the product, may imply re-verification and re-certification.

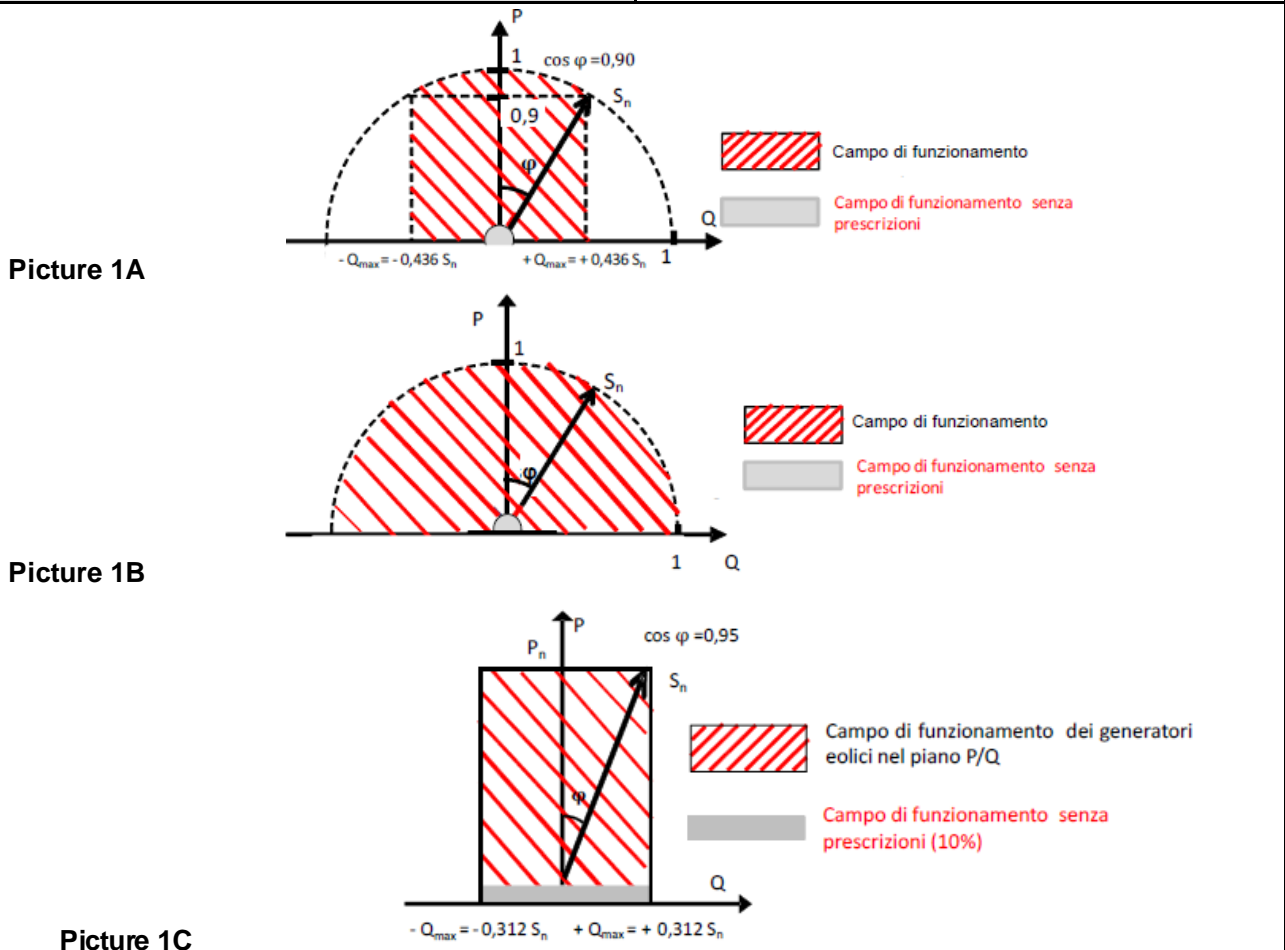
Date: 03.05.2023

Signature :

  
Weichun Li



<b>N.6.1 Verifica della capability di erogazione della potenza reattiva</b> <i>/reactive power production capability</i>	
Ambient temperature (°C) .....	25 °C ± 5 °C
Humidity (RH %) .....	65%
Instrumentation list.....	See table "Measurement equipment and instrumentation"
Uncertainty .....	See table "Metodi di prova/Testing methods"
<b>Potenza massima dell'impianto di destinazione:</b> <i>Maximum power of the destination plant:</i>	<input type="checkbox"/> PV <sub>plant</sub> < 400 KW (see picture 1A) <input checked="" type="checkbox"/> PV <sub>plant</sub> ≥ 400 KW (see picture 1B) <input type="checkbox"/> Wind generator (see picture 1C)



For each of the 11 levels of active power, 1 values of inductive reactive power and 1 values of capacitive reactive power must be recorded, as averaged values in 1 min, based on the measurements at the fundamental frequency in a window of 200ms.

Operator .....	See cover page
Supervisor .....	See cover page
Test Date.....	See cover page

**N.6.1.1 Modalità di esecuzione e registrazione della prova applicabile a generatori statici***/ test execution and recording modes (applicable to static generators)*

The DUT is set so that it can absorb (inductive behavior) and deliver (capacitive behavior) the maximum reactive power available in each of the active power bins (0%, 10%, ..., 100%).

The input power is set such that the DUT can deliver the maximum active power.

The maximum absorption capability ( $Q_{\min}$ ) and delivery ( $Q_{\max}$ ) of reactive power resulting from the sequence of the above measures and that for  $Q = 0$  has to be documented in tabular form.

The test is passed successfully if the detected value of maximum reactive power, reported in a P-Q diagram, is external or at least coincident with the perimeter of the minimum capability of Picture 1B.

For each measured point, a maximum deviation of reactive power  $\Delta Q \leq \pm 5\%$  of the rated apparent power is allowed.

Values are measured as 1-min average.

**Table 6.1.1a: Maximum capability P-Q (Q=0)**

Power-Bin	Active power		Reactive Power		DC Power		Power Factor
	[W]	p.u.	[VA]	p.u.	[W]	p.u.	
0% ±5%	3005.16	0.03	532.15	0.00	3637.63	0.03	0.971
10% ±5%	11009.27	0.10	519.21	0.00	11532.34	0.10	0.997
20% ±5%	22037.93	0.20	606.34	0.01	22781.73	0.21	0.998
30% ±5%	33073.89	0.30	671.05	0.01	34105.09	0.31	0.999
40% ±5%	44117.98	0.40	773.34	0.01	45677.08	0.42	0.999
50% ±5%	53487.28	0.49	840.21	0.01	55066.62	0.50	0.998
60% ±5%	65971.83	0.60	936.15	0.01	67613.27	0.61	0.997
70% ±5%	77647.03	0.71	1012.07	0.01	79631.34	0.72	0.996
80% ±5%	88950.21	0.81	1075.18	0.01	90977.33	0.83	0.996
90% ±5%	98205.22	0.89	1096.56	0.01	100675.96	0.92	0.996
100% ±5%	110198.54	1.00	1197.76	0.01	113918.53	1.04	1.000

**Table 6.1.1b: Maximum capability P-Q (Q=Q<sub>max|cap</sub>)**

Power-Bin	Active power		Reactive Power		Capability limit for reactive power (picture 1B +/- 5%Sn)	DC Power		Power Factor
	[W]	p.u.	[VA]	p.u.		[W]	p.u.	
0% ±5%	965.40	0.009	8711.00	0.079	-0.021	990.16	0.009	0.114
10% ±5%	11004.65	0.100	111233.00	1.011	0.011	11286.82	0.103	0.098
20% ±5%	21033.74	0.191	111297.61	1.012	0.012	21573.06	0.196	0.186
30% ±5%	32107.09	0.292	111434.19	1.013	0.013	32930.35	0.299	0.277
40% ±5%	43212.38	0.393	111625.51	1.015	0.015	44320.39	0.403	0.361
50% ±5%	47535.64	0.432	111713.55	1.016	0.016	48754.50	0.443	0.392
60% ±5%	47498.16	0.432	111720.85	1.016	0.016	48716.06	0.443	0.391
70% ±5%	47506.35	0.432	111718.91	1.016	0.016	48724.46	0.443	0.391
80% ±5%	47472.15	0.432	111706.73	1.016	0.016	48689.39	0.443	0.391
90% ±5%	47538.04	0.432	111721.22	1.016	0.016	48756.97	0.443	0.392
100% ±5%	47476.64	0.432	111733.36	1.016	0.016	48693.99	0.443	0.391

**Table 6.1.1c: Maximum capability P-Q (Q=Qmax|ind)**

Power-Bin	Active power		Reactive Power		Minimum capability limit (picture 1B +/- 5%Sn)	DC Power		Power Factor
	[W]	p.u.	[VA]	p.u.		[W]	p.u.	
0% ±5%	1134.412	0.010	-5597.415	-0.051	0.049	1696.910	0.015	0.201
10% ±5%	12087.35	0.110	-110058.85	-1.001	-0.001	12397.28	0.113	0.109
20% ±5%	23222.00	0.211	-110074.30	-1.001	-0.001	23817.44	0.217	0.206
30% ±5%	34353.03	0.312	-110019.59	-1.000	0.000	35233.88	0.320	0.298
40% ±5%	45277.18	0.412	-109982.16	-1.000	0.000	46438.13	0.422	0.381
50% ±5%	45734.71	0.416	-109978.16	-1.000	0.000	46907.40	0.426	0.384
60% ±5%	45718.42	0.416	-109983.08	-1.000	0.000	46890.69	0.426	0.384
70% ±5%	45737.51	0.416	-109998.73	-1.000	0.000	46910.27	0.426	0.384
80% ±5%	45762.58	0.416	-109986.44	-1.000	0.000	46935.98	0.427	0.384
90% ±5%	45757.07	0.416	-110007.19	-1.000	0.000	46930.33	0.427	0.384
100% ±5%	45768.40	0.416	-110051.67	-1.000	0.000	46941.95	0.427	0.384