



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 0-21;V1:2022-11**  
 Declaration of Conformity to Requirements of the Standard CEI 0-21;V1:2022-11

**TIPOLOGIA DEL SISTEMA DI ACCUMULO CUI SI RIFERISCE LA DICHIARAZIONE:**  
 Type of Storage System 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	RHI-3K-48ES-5G RHI-3K-48ES-5G-NS S5-EH1P3K-L	V2F o superiore or upper	Monofase /SinglePhase	3000
	RHI-3.6K-48ES-5G RHI-3.6K-48ES-5G-NS S5-EH1P3.6K-L			3600
	RHI-4.6K-48ES-5G RHI-4.6K-48ES-5G-NS S5-EH1P4.6K-L			4600
	RHI-5K-48ES-5G RHI-5K-48ES-5G-NS S5-EH1P5K-L			5000
	RHI-6K-48ES-5G RHI-6K-48ES-5G-NS S5-EH1P6K-L			6000
	RAI-3K-48ES-5G	V08 o superiore or upper		3000

**Gli inverter suddetti sono certificati in combinazione con una delle seguenti opzioni di Batteria al Litio:**  
 The inverters here above listed are certified according with one of the following options of Lithium Battery:

COSTRUTTORE: Manufacturer	MODELLO DI BATTERIA: Battery Model	Capacità del sistema di accumulo (CUS) Storage system capacity (CUS)		
		Capacità per singolo modulo (kWh) Capacity For Each Battery Module (kWh)	Numero di batterie raccomandate dal costruttore Number(s) of Battery Module Recommended By Manufacturer	
Pylontech	US2000/US2000C/Phantom-S	2.4	1-8	
	US3000/US3000C	3.55	1-8	
	Force L2	FL4874M (Modulo/Module)	3.55	2-4
		FC0048M (BMS)		1-6
	Force L1	FL48074 (Modulo/Module)	3.55	2-7
		FC0048 (BMS)		1-6
	US5000/US5000B	4.8	1-16	
LG	Resu 3.3	3.3	1-2	
	Resu 6.5	6.5		
LG	Resu 10	9.8	1-2	





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	Resu 12	13.1	
UZ Energy	L051100-A	5.12	1-16
	L051100-A1	5.12	
Dyness	B4850	2.4	1-40
	PowerDepot	2.4	1-2
	PowerBox	2.4	1-4
	A48100	4.8	1-40
WECO	5K3-XP-EU	5.37	1-15

**NOTA: Il dispositivo è in grado di limitare la I<sub>dc</sub> allo 0,5% della corrente nominale.**

Note: The device is capable to limit I<sub>dc</sub> to 0,5% of the rated current

**Esaminati i Fascicoli Prove n° 704092103620-02, 704092008118-01, 704092103634-01, 704092103621-01 e 704092201818-00, emessi dal laboratorio TÜV SÜD Certification and Testing (China) Co., Ltd con accreditamento DAkKS n. D-PL-19065-01-00 and i Fascicoli Prove n° CN210CFH 002 e CN22RB1Z 002 emessi dal laboratorio TÜV Rheinland (Shanghai) Co. Ltd con accreditamento CNAS n. L 38038.**

**Ai sensi degli articolo 76 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 0-21;V1:2022-11.**

Taken into account test report No. 704092103620-02, 704092008118-01, 704092103634-01, 704092103621-01 and 704092201818-00 issued by test TÜV SÜD Certification and Testing (China) Co., Ltd with DAkKS accreditation No. D-PL-19065-01-00 and the test report No. CN210CFH 002 and CN22RB1Z 002 issued by test TÜV Rheinland (Shanghai) Co. Ltd with CNAS accreditation No. L 38038.

According with the article 76 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, herewith declare that the product complies with the requirements of CEI 0-21;V1:2022-11

**DATA 13/12/2023**  
**DATE 13/12/2023**

**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 conformat\_Declaration\_of  
\_Comformity\_CEI\_0-21;V1\_2022-11\_1PH\_RHI\_RAI\_REV.00

Grandall Law Firm (Beijing)

January 2<sup>nd</sup> 2024



# Compliance Document

No. D 086470 0088 Rev. 02

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

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

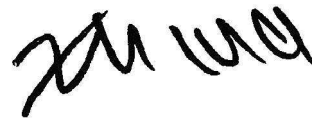
**Product:**

**Converter**  
**Grid-interactive inverter with storage**  
**battery system**

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.:** 704092103620-02

**Date,** 2022-11-25



( Zhengdong Ma )





# Compliance Document

No. D 086470 0088 Rev. 02

**Model(s):**

Gird-interactive inverter: RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS,  
 RAI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS,  
 RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS,  
 RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS,  
 RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS,  
 EH1P4.6K-L,  
 EH1P3K-L-NS,  
 NS,  
 S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS,  
 S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS

Storage battery system: US2000 (1-8 pieces), US3000 (1-8 pieces),  
 Force L1 (2-7 pieces), Force L2 (2-4 pieces),  
 US2000C (1-8 pieces), Phantom-S (1-8 pieces),  
 US3000C (1-8 pieces)

**Parameters:**  
 Please see pages 3 to 7.

**Tested according to:** CEI 0-21:2022

# Compliance Document

No. D 086470 0088 Rev. 02

The following generators meet the requirements of CEI 0-21:2022						
Section A	Manufacturer	Ginlong Technologies Co., Ltd. No.57 Jintong Road, Binhai Industrial Park, Xiangshan, 315712 Ningbo, Zhejiang, PEOPLE'S REPUBLIC OF CHINA				
	Equipment type	Grid-interactive inverter with storage battery system				
	Brand	Solis				
	Number of phase	<input checked="" type="checkbox"/> Single phase <input type="checkbox"/> Three phase Frequency: 50Hz Voltage: a.c. 230V				
	Primary energy used	<input checked="" type="checkbox"/> Solar <input checked="" type="checkbox"/> Storage <input type="checkbox"/> Wind <input type="checkbox"/> Hydroelectric <input type="checkbox"/> CHP <input type="checkbox"/> Other: Note: RAI-3K-48ES-5G can be operated with battery input only, other models can be operated with both PV and battery inputs.				
	Generator model	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, RAI-3K-48ES-5G, S5-EH1P3K-L-NS	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS	RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P5K-L-NS	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L, S5-EH1P6K-L-NS
	Rated power	3000 W / 3300 VA	3600 W / 4000 VA	4600 W / 4600 VA	5000 W / 5500 VA	6000 W / 6600 VA
	The generator:	<input type="checkbox"/> is suitable for installation in systems with an output power of more than 11.08 kW <input checked="" type="checkbox"/> is capable of limiting Idc to 0.5% of rated current: <input checked="" type="checkbox"/> uses a DC-sensitive protection function <input type="checkbox"/> uses a transformer operating at mains frequency				
Section B	Characteristics of the interface protection system					
	Manufacturer	Ginlong Technologies Co., Ltd.				
	Model	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, RAI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P3K-L-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS, S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS				
	Type	<input checked="" type="checkbox"/> Integrated <input type="checkbox"/> Not integrated				

# Compliance Document

No. D 086470 0088 Rev. 02

Characteristics of inverter(s)																																									
Section C	<table border="1"> <tr> <td>Model of inverter</td> <td>RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, RAI-3K-48ES-5G, S5-EH1P3K-L-NS</td> <td>RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS</td> <td>RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L-NS</td> <td>RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L-NS</td> <td>RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L-NS</td> </tr> <tr> <td>Manufacturer of inverter</td> <td colspan="5">Ginlong Technologies Co., Ltd.</td> </tr> <tr> <td>Firmware version</td> <td colspan="5">A1</td> </tr> <tr> <td>Rated power of inverter (PNINV)</td> <td>3000 W</td> <td>3600 W</td> <td>4600 W</td> <td>5000 W</td> <td>6000 W</td> </tr> </table>	Model of inverter	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, RAI-3K-48ES-5G, S5-EH1P3K-L-NS	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L-NS	RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L-NS	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L-NS	Manufacturer of inverter	Ginlong Technologies Co., Ltd.					Firmware version	A1					Rated power of inverter (PNINV)	3000 W	3600 W	4600 W	5000 W	6000 W																
Model of inverter	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, RAI-3K-48ES-5G, S5-EH1P3K-L-NS	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L-NS	RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L-NS	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L-NS																																				
Manufacturer of inverter	Ginlong Technologies Co., Ltd.																																								
Firmware version	A1																																								
Rated power of inverter (PNINV)	3000 W	3600 W	4600 W	5000 W	6000 W																																				
Characteristics of the Storage System (SdA)																																									
Section E	<table border="1"> <tr> <td>Representative Combination</td> <td>RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-4K-48ES-5G, RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-3K-48ES-5G-L-NS, RHI-3.6K-48ES-5G-L-NS, RHI-4K-48ES-5G-L-NS, RHI-4.6K-48ES-5G-L-NS, RHI-5K-48ES-5G-L-NS, RHI-6K-48ES-5G-L-NS, S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P4K-L, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P3K-L-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS, S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with US2000 or US2000C or Phantom-S (1 piece)</td> <td>RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-4K-48ES-5G, RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-3K-48ES-5G-L-NS, RHI-3.6K-48ES-5G-L-NS, RHI-4K-48ES-5G-L-NS, RHI-4.6K-48ES-5G-L-NS, RHI-5K-48ES-5G-L-NS, RHI-6K-48ES-5G-L-NS with US2000 or US2000C or Phantom-S (2 pieces)</td> <td>RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3.6K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3K-L-NS with US2000 or US2000C or Phantom-S (3-8 pieces)</td> <td>RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS with US2000 or US2000C or Phantom-S (3-8 pieces)</td> <td>RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-4.6K-48ES-5G-NS, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L-NS with US2000 or US2000C or Phantom-S (3 pieces)</td> <td>RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS with US2000 or US2000C or Phantom-S (4-8 pieces)</td> <td>RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with US2000 or US2000C or Phantom-S (4-8 pieces)</td> </tr> <tr> <td>Psn (nominal discharge power)</td> <td>1100</td> <td>2300</td> <td>3000</td> <td>3000</td> <td>3450</td> <td>4600</td> <td>4600</td> </tr> <tr> <td>Pcn (nominal charging power)</td> <td>1300</td> <td>2750</td> <td>3000</td> <td>3600</td> <td>4200</td> <td>4600</td> <td>5000</td> </tr> <tr> <td>Psm<sub>max</sub> (max. discharge power)</td> <td>1100</td> <td>2300</td> <td>3000</td> <td>3000</td> <td>3450</td> <td>4600</td> <td>4600</td> </tr> <tr> <td>Pcm<sub>max</sub> (max. charging power)</td> <td>1300</td> <td>2750</td> <td>3000</td> <td>3600</td> <td>4200</td> <td>4600</td> <td>5000</td> </tr> </table>	Representative Combination	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-4K-48ES-5G, RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-3K-48ES-5G-L-NS, RHI-3.6K-48ES-5G-L-NS, RHI-4K-48ES-5G-L-NS, RHI-4.6K-48ES-5G-L-NS, RHI-5K-48ES-5G-L-NS, RHI-6K-48ES-5G-L-NS, S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P4K-L, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P3K-L-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS, S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with US2000 or US2000C or Phantom-S (1 piece)	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-4K-48ES-5G, RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-3K-48ES-5G-L-NS, RHI-3.6K-48ES-5G-L-NS, RHI-4K-48ES-5G-L-NS, RHI-4.6K-48ES-5G-L-NS, RHI-5K-48ES-5G-L-NS, RHI-6K-48ES-5G-L-NS with US2000 or US2000C or Phantom-S (2 pieces)	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3.6K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3K-L-NS with US2000 or US2000C or Phantom-S (3-8 pieces)	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS with US2000 or US2000C or Phantom-S (3-8 pieces)	RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-4.6K-48ES-5G-NS, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L-NS with US2000 or US2000C or Phantom-S (3 pieces)	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS with US2000 or US2000C or Phantom-S (4-8 pieces)	RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with US2000 or US2000C or Phantom-S (4-8 pieces)	Psn (nominal discharge power)	1100	2300	3000	3000	3450	4600	4600	Pcn (nominal charging power)	1300	2750	3000	3600	4200	4600	5000	Psm <sub>max</sub> (max. discharge power)	1100	2300	3000	3000	3450	4600	4600	Pcm <sub>max</sub> (max. charging power)	1300	2750	3000	3600	4200	4600	5000
Representative Combination	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-4K-48ES-5G, RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-3K-48ES-5G-L-NS, RHI-3.6K-48ES-5G-L-NS, RHI-4K-48ES-5G-L-NS, RHI-4.6K-48ES-5G-L-NS, RHI-5K-48ES-5G-L-NS, RHI-6K-48ES-5G-L-NS, S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P4K-L, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P3K-L-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS, S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with US2000 or US2000C or Phantom-S (1 piece)	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-4K-48ES-5G, RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-3K-48ES-5G-L-NS, RHI-3.6K-48ES-5G-L-NS, RHI-4K-48ES-5G-L-NS, RHI-4.6K-48ES-5G-L-NS, RHI-5K-48ES-5G-L-NS, RHI-6K-48ES-5G-L-NS with US2000 or US2000C or Phantom-S (2 pieces)	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3.6K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3K-L-NS with US2000 or US2000C or Phantom-S (3-8 pieces)	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS with US2000 or US2000C or Phantom-S (3-8 pieces)	RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-4.6K-48ES-5G-NS, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L-NS with US2000 or US2000C or Phantom-S (3 pieces)	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS with US2000 or US2000C or Phantom-S (4-8 pieces)	RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with US2000 or US2000C or Phantom-S (4-8 pieces)																																		
Psn (nominal discharge power)	1100	2300	3000	3000	3450	4600	4600																																		
Pcn (nominal charging power)	1300	2750	3000	3600	4200	4600	5000																																		
Psm <sub>max</sub> (max. discharge power)	1100	2300	3000	3000	3450	4600	4600																																		
Pcm <sub>max</sub> (max. charging power)	1300	2750	3000	3600	4200	4600	5000																																		

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ZERTIFIKAT ◆ CERTIFICATE ◆ 認 證 證 書 ◆ CERTIFICADO ◆ СЕРТИФИКАТ ◆ CERTIFICAT

Representative Combination	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-4K-48ES-5G, RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-(3-6)K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P4K-L, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P3K-L-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS, S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with US3000 or US3000C (1 piece)	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3.6K-L-NS with US3000 or US3000C (2-8 pieces)	RHI-3.6K-48ES-5G, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P4K-L-NS with US3000 or US3000C (2-8 pieces)	RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS with US3000 or US3000C (3-8 pieces)	RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS with US3000 or US3000C (3-8 pieces)	RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with US3000 or US3000C (3-8 pieces)	
Psn (nominal discharge power)	1700	3000	3000	3400	4600	4600	
Pcn (nominal charging power)	2050	3000	3600	4100	4600	5000	
Psmax (max. discharge power)	1700	3000	3000	3400	4600	4600	
Pcmx (max. charging power)	2050	3000	3600	4100	4600	5000	
Representative Combination	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-4K-48ES-5G, RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-(3-6)K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P4K-L, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P3K-L-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS, S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with Force L1 or Force L2 (2 pieces)	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-4K-48ES-5G, RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-(3-6)K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P4K-L, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P3K-L-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS, S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with Force L1 or force L2 (3 pieces)	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L with Force L1 or Force L2 (4 pieces)	RHI-(3.6-6)K-48ES-5G, RHI-(3.6-6)K-48ES-5G-NS, S5-EH1P(3.6-6)K-L, S5-EH1P(3.6-6)K-L-NS with Force L1 or Force L2 (4 pieces)	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3K-L-NS with Force L1 (5-7 pieces)	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS with Force L1 (5-7 pieces)	RHI-4.6K-48ES-5G, RHI-5K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with Force L1 (5 pieces)
Psn (nominal discharge power)	1350	2050	2750	2750	3000	3000	3400

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P <sub>cn</sub> (nominal charging power)	1650	2450	3000	3300	3000	3600	4100
P <sub>smax</sub> (max. discharge power)	1350	2050	2750	2750	3000	3000	3400
P <sub>cmax</sub> (max. charging power)	1650	2450	3000	3300	3000	3600	4100
Representative Combination	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS with Force L1 (6 pieces)	RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with Force L1 (6 pieces)	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS with Force L1 (7 pieces)	RHI-5K-48ES-5G, RHI-6K-48ES-5G, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with Force L1 (7 pieces)			
P <sub>sn</sub> (nominal discharge power)	4100	4100	4600	4600			
P <sub>cn</sub> (nominal charging power)	4600	5000	4600	5000			
P <sub>smax</sub> (max. discharge power)	4100	4100	4600	4600			
P <sub>cmax</sub> (max. charging power)	4600	5000	4600	5000			
Type	<input checked="" type="checkbox"/> Bidirectional <input type="checkbox"/> Monodirectional						
Batteries that can be used with the above static converters							
Brand	Pylon						
Technology	Li-Ion						
Models	US2000 or US2000C or Phantom-S			US3000 or US 3000C or Force L1 or Force L2			
CUS module (kWh)	2.40			3.55			
BMS firmware version	V4.6						
Number of modules	1-8 pieces			1-8 pieces (US3000 or US 3000C) 2-7 pieces (Force L1) 2-4 pieces (Force L2)			
Note	Batteries are not contained in the inverter and should be installed according to local regulations and in accordance with Pylon instruction.						

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Section I	References of the laboratories that performed the tests and their test reports (RdP)		
	Selected method	<input checked="" type="checkbox"/> Tests performed under the supervision of a certification body	<input checked="" type="checkbox"/> Tests performed by an accredited laboratory
	Test Reports (RdP)	1) Test report according to Annex A, Annex B & Bbis: 70.409.20.081.14-00, 70.409.21.036.20-00, 70.409.21.036.20-01, 70.409.21.036.20-02	2) Test report EMC: a) C19-447-WT-01; b) C19-447-WT-02; c) 64772228001902
	Issued by	Testing lab: 1) Ginlong Technologies Co., Ltd. Tests performed under supervision of certifier from TÜV SÜD Product Service GmbH	1) -a) & -b) Shanghai Inspection and Testing Institute of Instruments and Automation Systems Co.,Ltd. 1) -c) TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
	Accreditation No.	D-ZE-11321-01-00	1) -a) & b) CNAS L0130 1) -c) CNAS L3584
	Accreditation body ref.	DAKKS	CNAS
	Section M	Reference of the certification body	
Certification Body		TÜV SÜD Product Service GmbH DAKKS accreditation certificate D-ZE-11321-01-00 according to DIN EN ISO/IEC 17065:2013	



# Compliance Document

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**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**  
**Hybrid inverter and AC coupled inverter**  
**with storage battery system**

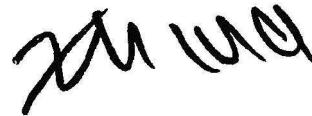
This Compliance document confirms the compliance with the listed standards on a voluntary basis. It refers only to the sample submitted for testing and certification and does not certify the quality or safety of the serial products. For details see: [www.tuvsud.com/ps-cert](http://www.tuvsud.com/ps-cert)

**Test report no.:**

704092008118-01

**Date,**

2022-03-17



( Zhengdong Ma )



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## Model(s):

AC coupled energy inverter: RAI-3K-48ES-5G  
 Hybrid inverter: RHI-3K-48ES, RHI-3K-48ES-5G,  
 RHI-3K-48ES-5G-NS, RHI-3.6K-48ES,  
 RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS,  
 RHI-4K-48ES-5G-NS, RHI-4.6K-48ES-5G,  
 RHI-4.6K-48ES-5G-NS, RHI-5K-48ES-5G,  
 RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G,  
 RHI-6K-48ES-5G-NS, S5-EH1P3K-L,  
 S5-EH1P3.6K-L, S5-EH1P4.6K-L,  
 S5-EH1P5K-L, S5-EH1P6K-L  
 Storage battery system: RESU3.3(1~2 pieces),  
 RESU6.5(1~2 pieces),  
 RESU10(1~2 pieces),  
 RESU12(1~2 pieces)

## Parameters:

Pease see the page 3 to page 8

## Tested according to:

CEI 0-21:2019/V1:2020

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AC coupled energy inverter with storage battery system:	
1) Storage battery system parameters:	
Battery Type:	Li-ion
Model:	Manufacturer
RESU3.3	LG Energy Solution Ltd
RESU6.5	LG Energy Solution Ltd
RESU10	LG Energy Solution Ltd
RESU12	LG Energy Solution Ltd
BMS firmware version	2.0.0.0
Note: In any combination, up to two of the above-mentioned batteries can be connected in parallel to the inverter.	
2) AC coupled energy inverter	
Model name:	RAI-3K-48ES-5G
a) Battery:	
Battery Type:	Li-ion
Battery voltage range:	40-60 Vd.c.
Max. Charge current:	60 Ad.c.
Max. Discharge current:	60 Ad.c.
b) AC-Output (Back-up):	
Rated output voltage:	230 Va.c.
Rated frequency:	50 Hz
Rated output current:	13 Aa.c.
Rated output active power:	3000 W
Rated output apparent power:	3000 VA
c) AC-Output (Grid Side):	
Rated output voltage:	230 Va.c.
Rated frequency:	50 Hz
Rated output current:	13 Aa.c.
Max. output active power:	3000 W
Max. output apparent power:	3300 VA
Power factor:	0.8 leading - 0.8 lagging
d) AC input:	
Rated input voltage:	230 Va.c.
Rated frequency:	50 Hz
Max. input current:	32 Aa.c.
e) General:	
Protective class:	Class I
Operation temperature range:	-25...60°C
Ingress protection:	IP65
Overvoltage-category:	II (DC), III (MAINS)

# Compliance Document

No. D 086470 0080 Rev. 01

Hybrid inverter with storage battery system:				
1) Storage battery system parameters:				
Battery Type:	Li-ion			
Model:	Manufacturer			
RESU3.3	LG Energy Solution Ltd			
RESU6.5	LG Energy Solution Ltd			
RESU10	LG Energy Solution Ltd			
RESU12	LG Energy Solution Ltd			
BMS firmware version	2.0.0.0			
Note: In any combination, up to two of the above-mentioned batteries can be connected in parallel to the inverter.				
2) Hybrid inverter:				
Model name	RHI-3K-48ES	RHI-3.6K-48ES	RHI-4.6K-48ES	RHI-5K-48ES
a) PV input parameters:				
Max. Input Voltage:	600 Vd.c.			
MPP Voltage Range:	90-520 Vd.c.			
Max. Input Current:	2×11 Ad.c.			
Isc PV:	2×17,2 Ad.c.			
b) Battery parameters:				
Battery Type:	Li-Ion			
Battery Voltage Range:	42-58 Vd.c.			
Max. Charge Current:	62,5 Ad.c.			
Max. Discharge Current:	62,5 Ad.c.			
c) AC-Output (Back-up) parameters:				
Rated Output Voltage:	230 Va.c.			
Rated Output Frequency:	50 Hz			
Rated Output Current:	13 Aa.c.			
Rated Output Power:	3000 W			
d) AC-Output (Grid Side) parameters:				
Rated Output Voltage:	230 Va.c.			
Rated Output Frequency:	50 Hz			
Rated Output Power:	3000 W	3600 W	4600 W	5000 W
Max. Apparent Output Power:	3300VA	4000VA	4600VA	5500VA
Max. Output Current:	15,7 Aa.c.	17,3 Aa.c.	23 Aa.c.	23,9 Aa.c.
Model name	RHI-3K-48ES	RHI-3.6K-48ES	RHI-4.6K-48ES	RHI-5K-48ES
Power Factor(adj.):	0,8(lagging)...0,8(leading)			
e) AC input parameters:				
Rated Voltage:	230 Va.c.			
Current (Maximum Continuous):	23,9 Aa.c.			
Rated Frequency:	50 Hz			
f) General:				
Operating Temperature Range:	-25 °C...+60 °C			
Protective Class:	I			
Ingress Protection:	IP65			
Overvoltage Category:	II(PV), III(MAINS)			
Inverter Topology:	Non-isolated			

# Compliance Document

No. D 086470 0080 Rev. 01

2) Hybrid inverter:			
Model name	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS	RHI-4K-48ES-5G-NS
a) PV input parameters:			
Max. Input Voltage:	600 Vd.c.		
MPP Voltage Range:	90-520 Vd.c.		
Max. Input Current:	2×11 Ad.c.		
Isc PV:	2×17,2 Ad.c.		
b) Battery parameters:			
Battery Type:	Li-ion / Lead-acid		
Battery Voltage Range:	42-58 Vd.c.		
Max. Charge Current:	62,5 Ad.c.		
Max. Discharge Current:	62,5 Ad.c.		
c) AC-Output (Back-up) parameters:			
Rated Output Voltage:	230 Va.c.		
Rated Output Frequency:	50 Hz		
Rated Output Current:	13 Aa.c.		
Rated Output Power:	3000 W		
d) AC-Output (Grid Side) parameters:			
Rated Output Voltage:	230 Va.c.		
Rated Output Frequency:	50 Hz		
Rated Output Power:	3000 W	3600 W	3600 W
Max. Apparent Output Power:	3300VA	4000VA	4000VA
Max. Output Current:	15,7 Aa.c.	17,3 Aa.c.	17,3 Aa.c.
Power Factor(adj.):	0,8(lagging)...0,8(leading)		
e) AC input parameters:			
Rated Voltage:	230 Va.c.		
Current (Maximum Continuous):	26,1 Aa.c.		
Rated Frequency:	50 Hz		
f) General:			
Operating Temperature Range:	-25 °C...+60 °C		
Protective Class:	I		
Ingress Protection:	IP65		
Overvoltage Category:	II(PV), III(MAINS)		
Inverter Topology:	Non-isolated		

# Compliance Document

No. D 086470 0080 Rev. 01

2) Hybrid inverter:			
Model name	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS	RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS
a) PV input parameters:			
Max. Input Voltage:	600 Vd.c.		
MPP Voltage Range:	90-520 Vd.c.		
Max. Input Current:	2×11 Ad.c.		
Isc PV:	2×17,2 Ad.c.		
b) Battery parameters:			
Battery Type:	Li-ion / Lead-acid		
Battery Voltage Range:	42-58 Vd.c.		
Max. Charge Current:	100 Ad.c.		
Max. Discharge Current:	100 Ad.c.		
c) AC-Output (Back-up) parameters:			
Rated Output Voltage:	230 Va.c.		
Rated Output Frequency:	50 Hz		
Rated Output Current:	22 Aa.c.		
Rated Output Power:	5000 W		
d) AC-Output (Grid Side) parameters:			
Rated Output Voltage:	230 Va.c.		
Rated Output Frequency:	50 Hz		
Rated Output Power:	4600 W	5000 W	6000 W
Max. Apparent Output Power:	4600VA	5500VA	6600 VA
Max. Output Current:	23 Aa.c.	23,9 Aa.c.	30Aa.c.
Power Factor(adj.):	0,8(lagging)...0,8(leading)		
e) AC input parameters:			
Rated Voltage:	230 Va.c.		
Current (Maximum Continuous):	26,1 Aa.c.		
Rated Frequency:	50 Hz		
f) General:			
Operating Temperature Range:	-25 °C... +60 °C		
Protective Class:	I		
Ingress Protection:	IP65		
Overvoltage Category:	II(PV), III(MAINS)		
Inverter Topology:	Non-isolated		



# Compliance Document

No. D 086470 0080 Rev. 01

2) Hybrid inverter:			
Model name	S5-EH1P3K-L	S5-EH1P3.6K-L	S5-EH1P4.6K-L
a) PV input parameters:			
Max. Input Voltage:	600 Vd.c.	600 Vd.c.	600 Vd.c.
MPP Voltage Range:	90-520 Vd.c.	90-520 Vd.c.	90-520 Vd.c.
Max. Input Current:	2×15 Ad.c.	2×15 Ad.c.	2×15 Ad.c.
Isc PV:	2×22,5 Ad.c.	2×22,5 Ad.c.	2×22,5 Ad.c.
b) Battery parameters:			
Battery Type:	Li-ion / Lead-acid	Li-ion / Lead-acid	Li-ion / Lead-acid
Battery Voltage Range:	42-58 Vd.c.	42-58 Vd.c.	42-58 Vd.c.
Max. Charge Current:	62,5 Ad.c.	62,5 Ad.c.	100 Ad.c.
Max. Discharge Current:	62,5 Ad.c.	62,5 Ad.c.	100 Ad.c.
c) AC-Output (Back-up) parameters:			
Rated Output Voltage:	230 Va.c.	230 Va.c.	230 Va.c.
Rated Output Frequency:	50 Hz	50 Hz	50 Hz
Rated Output Current:	13,5 Aa.c.	13,5 Aa.c.	22 Aa.c.
Rated Output Power:	3000 W	3000 W	5000 W
d) AC-Output (Grid Side) parameters:			
Rated Output Voltage:	230 Va.c.	230 Va.c.	230 Va.c.
Rated Output Frequency:	50 Hz	50 Hz	50 Hz
Model name	S5-EH1P3K-L	S5-EH1P3.6K-L	S5-EH1P4.6K-L
Rated Output Power:	3000 W	3600 W	4600 W
Max. Apparent Output Power:	3300VA	4000VA	4600VA
Max. Output Current:	15 Aa.c.	18,5 Aa.c.	21 Aa.c.
Power Factor(adj.):	0,8(lagging)...0,8(leading)		
e) AC input parameters:			
Rated Voltage:	230 Va.c.		
Current (Maximum Continuous):	20,5 Aa.c.	25 Aa.c.	31,5 Aa.c.
Rated Frequency:	50 Hz		
f) General:			
Operating Temperature Range:	-25 °C...+60 °C		
Protective Class:	I		
Ingress Protection:	IP65		
Overvoltage Category:	II(PV), III(MAINS)		
Inverter Topology:	Non-isolated		

# Compliance Document

No. D 086470 0080 Rev. 01

Model name	S5-EH1P5K-L	S5-EH1P6K-L
a) PV input parameters:		
Max. Input Voltage:	600 Vd.c.	
MPP Voltage Range:	90-520 Vd.c.	
Max. Input Current:	2×15 Ad.c.	
Isc PV:	2×22,5 Ad.c.	
b) Battery parameters:		
Battery Type:	Li-ion / Lead-acid	
Battery Voltage Range:	42-58 Vd.c.	
Max. Charge Current:	100 Ad.c.	
Max. Discharge Current:	100 Ad.c.	
c) AC-Output (Back-up) parameters:		
Rated Output Voltage:	230 Va.c.	
Rated Output Frequency:	50 Hz	
Rated Output Current:	22 Aa.c.	
Rated Output Power:	5000 W	
d) AC-Output (Grid Side) parameters:		
Rated Output Voltage:	230 Va.c.	
Rated Output Frequency:	50 Hz	
Rated Output Power:	5000 W	6000 W
Max. Apparent Output Power:	5500VA	6600 VA
Max. Output Current:	25 Aa.c.	30 Aa.c.
Power Factor(adj.):	0,8(lagging)...0,8(leading)	
e) AC input parameters:		
Rated Voltage:	230 Va.c.	
Current (Maximum Continuous):	34,5 Aa.c.	
Rated Frequency:	50 Hz	
f) General:		
Operating Temperature Range:	-25 °C...+60 °C	
Protective Class:	I	
Ingress Protection:	IP65	
Overvoltage Category:	II(PV), III(MAINS)	
Inverter Topology:	Non-isolated	

# Compliance Document

No. D 086470 0099 Rev. 01

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

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

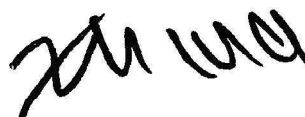
**Product:**

**Converter**  
**Grid-interactive inverter with storage**  
**battery system**

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.:** 704092103634-01

**Date,** 2022-09-09



( Zhengdong Ma )



# Compliance Document

No. D 086470 0099 Rev. 01

**Model(s):**

Gird-interactive inverter: RHI-3K-48ES, RHI-3K-48ES-5G,  
 RHI-3K-48ES-5G-NS, RHI-3.6K-48ES,  
 RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS,  
 RHI-4K-48ES-5G-NS, RHI-4.6K-48ES,  
 RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS,  
 RHI-5K-48ES, RHI-5K-48ES-5G,  
 RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G,  
 RHI-6K-48ES-5G-NS, S5-EH1P3K-L,  
 S5-EH1P3.6K-L, S5-EH1P4.6K-L,  
 S5-EH1P5K-L, S5-EH1P6K-L,  
 RAI-3K-48ES-5G

Storage battery system: L051100-A (Power Lite),  
 L051100-A1 (Power Lite)

**Parameters:**  
 Please see page 3 to page 6.

**Tested according to:** CEI 0-21:2022

# Compliance Document

No. D 086470 0099 Rev. 01

	The following generators meet the requirements of CEI 0-21:2022					
Section A	Manufacturer	Ginlong Technologies Co., Ltd. No.57 Jintong Road, Binhai Industrial Park, Xiangshan, 315712 Ningbo, Zhejiang, PEOPLE'S REPUBLIC OF CHINA				
	Equipment type	Grid-interactive inverter with storage battery system				
	Brand	Solis				
	Number of phase	<input checked="" type="checkbox"/> Single phase <input type="checkbox"/> Three phase Frequency: 50Hz Voltage: a.c. 230V				
	Primary energy used	<input checked="" type="checkbox"/> Solar <input checked="" type="checkbox"/> Storage <input type="checkbox"/> Wind <input type="checkbox"/> Hydroelectric <input type="checkbox"/> CHP <input type="checkbox"/> Other: Note: RAI-3K-48ES-5G can be operated with battery input only, other models can be operated with both PV and battery inputs.				
	Generator model	RHI-3K-48ES, RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, RAI-3K-48ES-5G	RHI-3.6K-48ES, RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L	RHI-4.6K-48ES, RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L	RHI-5K-48ES, RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L
	Rated power	3000 W / 3300 VA	3600 W / 4000 VA	4600 W / 4600 VA	5000 W / 5500 VA	6000 W / 6600 VA
	The generator:	<input type="checkbox"/> is suitable for installation in systems with an output power of more than 11.08 kW <input checked="" type="checkbox"/> is capable of limiting Idc to 0.5% of rated current: <input checked="" type="checkbox"/> uses a DC-sensitive protection function <input type="checkbox"/> uses a transformer operating at mains frequency				

# Compliance Document

No. D 086470 0099 Rev. 01

ZERTIFIKAT ◆ CERTIFICATE ◆ 認 證 證 書 ◆ CERTIFICADO ◆ СЕРТИФИКАТ ◆ CERTIFICAT

Section B	Characteristics of the interface protection system					
	Manufacturer	Ginlong Technologies Co., Ltd.				
	Model	RAI-3K-48ES-5G, RHI-3K-48ES, RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, RHI-3.6K-48ES, RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, RHI-4.6K-48ES, RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, RHI-5K-48ES, RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L				
	Type	<input checked="" type="checkbox"/> Integrated <input type="checkbox"/> Not integrated				
Section C	Characteristics of inverter (s)					
	Model of inverter	RHI-3K-48ES, RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, RAI-3K-48ES-5G	RHI-3.6K-48ES, RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L	RHI-4.6K-48ES, RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L	RHI-5K-48ES, RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L
	Manufacturer of inverter	Ginlong Technologies Co., Ltd.				
	Firmware version	A1				
	Rated power	3000 W / 3300 VA	3600 W / 4000 VA	4600 W / 4600 VA	5000 W / 5500 VA	6000 W / 6600 VA



# Compliance Document

No. D 086470 0099 Rev. 01

Section E		Characteristics of the Storage System (SdA)					
Representative Combination	RHI-3K-48ES, RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, RAI-3K-48ES-5G with L051100-A / L051100-A1 (1 piece)	RHI-3K-48ES, RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, RAI-3K-48ES-5G with L051100-A / L051100-A1 (2~16 pieces)	RHI-3.6K-48ES, RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, S5-EH1P3.6K-L	RHI-3.6K-48ES, RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, S5-EH1P3.6K-L	RHI-4.6K-48ES, RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L	RHI-5K-48ES, RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L with L051100-A / L051100-A1 (2~16 pieces)	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L with L051100-A / L051100-A1 (2~16 pieces)
Psn (nominal discharge power)	2300	3000	2300	3600	4600	4600	4600
Pcn (nominal charging power)	3000	3000	3300	3600	4600	5000	6000
Psmax (max. discharge power)	2300	3000	2300	3600	4600	4600	4600
Pcmax (max. charging power)	3000	3000	3300	3600	4600	5000	6000

# Compliance Document

No. D 086470 0099 Rev. 01

	Type	<input checked="" type="checkbox"/> Bidirectional <input type="checkbox"/> Monodirectional	
	Batteries that can be used with the above static converters		
	Brand	Shenzhen UZ Energy Limited	
	Technology	Li-Ion	
	Models	L051100-A	L051100-A1
	CUS module (kWh)	5.12	5.12
	BMS firmware version	LM-M01A-YZ107	
	Number of modules	1-16	1-16
	Note	Batteries are not contained in the inverter and should be installed according to local regulations and in accordance with BYD instruction.	
	Section I	References of the laboratories that performed the tests and their test reports (RdP)	
Selected method		<input checked="" type="checkbox"/> Tests performed under the supervision of a certification body	<input checked="" type="checkbox"/> Tests performed by an accredited laboratory
Test Reports (RdP)		1) Test report according to Annex A, Annex B & Bbis: 70.409.20.081.14-00, 70.409.21.036.34-00 and 70.409.21.036.34-01	2) Test report EMC: a) C19-447-WT-01; b) C19-447-WT-02
Issued by		Testing lab: 1) Ginlong Technologies Co., Ltd. Tests performed under supervision of certifier from TÜV SÜD Product Service GmbH	2) -a) & -b) Shanghai Inspection and Testing Institute of Instruments and Automation Systems Co.,Ltd.
Accreditation No.		D-ZE-11321-01-00	2) -a) & -b) CNAS L0130
Accreditation body ref.		DAKKS	CNAS
Section III	Reference of the certification body		
	Certification Body	TÜV SÜD Product Service GmbH DAKKS accreditation certificate D-ZE-11321-01-00 according to DIN EN ISO/IEC 17065:2013	

# Compliance Document

No. D 086470 0108 Rev. 01

**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**  
**Grid-interactive inverter with storage**  
**battery system**

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.:** 704092103621-01

**Date,** 2022-11-25



( Zhengdong Ma )

# Compliance Document

No. D 086470 0108 Rev. 01

**Model(s):**

Gird-interactive inverter: RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS,  
 5G-NS,  
 5G-NS,  
 NS,  
 NS,  
 EH1P4.6K-L,  
 EH1P3K-L-NS,  
 NS,  
 NS,  
 NS,  
 S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS, S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS,  
 S5-EH1P6K-L-NS  
 Storage battery system: US5000, US5000-B

## Parameters:

		The following generators meet the requirements of CEI 0-21:2022				
Section A	Manufacturer	Ginlong Technologies Co., Ltd. No.57 Jintong Road, Binhai Industrial Park, Xiangshan, 315712 Ningbo, Zhejiang, PEOPLE'S REPUBLIC OF CHINA				
	Equipment type	Grid-interactive inverter with storage battery system				
	Brand	Solis				
	Number of phase	<input checked="" type="checkbox"/> Single phase <input type="checkbox"/> Three phase Frequency: 50Hz      Voltage: a.c. 230V				
	Primary energy used	<input checked="" type="checkbox"/> Solar <input checked="" type="checkbox"/> Storage <input type="checkbox"/> Wind <input type="checkbox"/> Hydroelectric <input type="checkbox"/> CHP <input type="checkbox"/> Other: Note: RAI-3K-48ES-5G can be operated with battery input only, other models can be operated with both PV and battery inputs.				
	Generator model	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, RAI-3K-48ES-5G, S5-EH1P3K-L-NS	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS	RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P5K-L-NS	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L, S5-EH1P6K-L-NS
	Rated power	3000 W / 3300 VA	3600 W / 4000 VA	4600 W / 4600 VA	5000 W / 5500 VA	6000 W / 6600 VA

# Compliance Document

No. D 086470 0108 Rev. 01

	The generator:	<input type="checkbox"/> is suitable for installation in systems with an output power of more than 11.08 kW <input checked="" type="checkbox"/> is capable of limiting $I_{dc}$ to 0.5% of rated current: <input checked="" type="checkbox"/> uses a DC-sensitive protection function <input type="checkbox"/> uses a transformer operating at mains frequency
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Section B	Characteristics of the interface protection system					
	Manufacturer	Ginlong Technologies Co., Ltd.				
	Model	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, RAI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P3K-L-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS, S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS				
	Type	<input checked="" type="checkbox"/> Integrated <input type="checkbox"/> Not integrated				
Section C	Characteristics of inverter(s)					
	Model of inverter	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, RAI-3K-48ES-5G, S5-EH1P3K-L-NS	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS	RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P5K-L-NS	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L, S5-EH1P6K-L-NS
	Manufacturer of inverter	Ginlong Technologies Co., Ltd.				
	Firmware version	A1				
	Rated power of inverter ( $P_{NINV}$ )	3000 W	3600 W	4600 W	5000 W	6000 W

# Compliance Document

No. D 086470 0108 Rev. 01

Characteristics of the Storage System (SdA)								
Section E	Representative Combination	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, RAI-3K-48ES-5G, S5-EH1P3K-L, S5-EH1P3K-L-NS with US5000 or US5000-B (1-16 pieces)	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, RHI-4K-48ES-5G-NS, S5-EH1P4K-L-NS with US5000 or US5000-B (1-16 pieces)	RHI-XK-48ES-5G, RHI-XK-48ES-5G-NS, S5-EH1PXX-L, S5-EH1PXX-L-NS (X=4,6,5,6) with US5000 or US5000-B (1 piece)	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS with US5000 or US5000-B (2-16 pieces)	RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P5K-L-NS with US5000 or US5000-B (2-16 pieces)	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L, S5-EH1P6K-L-NS with US5000 or US5000-B (2-16 pieces)	
	P <sub>sn</sub> (nominal discharge power)	3000	3000	3400	4500	4500	4500	
	P <sub>cn</sub> (nominal charging power)	3000	3600	4200	4600	5000	6000	
	P <sub>smax</sub> (max. discharge power)	3000	3000	3400	4500	4500	4500	
	P <sub>cmax</sub> (max. charging power)	3000	3600	4200	4600	5000	6000	
	Type	<input checked="" type="checkbox"/> Bidirectional <input type="checkbox"/> Monodirectional						
	Batteries that can be used with the above static converters							
	Brand	Pylon						
	Technology	Li-Ion						
	Models	US5000, US5000-B						
CUS module (kWh)	4.8							
BMS firmware version	US5000_MMCB_U150							
Number of modules	1-16							
Note	Batteries are not contained in the inverter and should be installed according to local regulations and in accordance with Pylon instruction.							



# Compliance Document

No. D 086470 0108 Rev. 01

Section I	References of the laboratories that performed the tests and their test reports (RdP)		
	Selected method	<input checked="" type="checkbox"/> Tests performed under the supervision of a certification body	<input checked="" type="checkbox"/> Tests performed by an accredited laboratory
	Test Reports (RdP)	1) Test report according to Annex A, Annex B & Bbis: 70.409.20.081.14-00, 70.409.21.036.20-00 and 70.409.21.036.21-01	2) Test report EMC: a) C19-447-WT-01; b) C19-447-WT-02; c) 64772228001902
	Issued by	Testing lab: 1) Ginlong Technologies Co., Ltd. Tests performed under supervision of certifier from TÜV SÜD Product Service GmbH	2) -a) & -b) Shanghai Inspection and Testing Institute of Instruments and Automation Systems Co.,Ltd. 2) -c) TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
	Accreditation No.	D-ZE-11321-01-00	2) -a) & b) CNAS L0130 2) -c) CNAS L3584
	Accreditation body ref.	DAKKS	CNAS
Section M	Reference of the certification body		
	Certification Body	TÜV SÜD Product Service GmbH DAKKS accreditation certificate D-ZE-11321-01-00 according to DIN EN ISO/IEC 17065:2013	

**Tested according to:**

CEI 0-21:2022

# CERTIFICATE of Conformity



Registration No.: AK 50550741 0001

Report No.: CN210CFH 002

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

Product: **Energy Storage system**  
(Grid-Interactive Inverter With Storage Battery System)

Identification: Type Designation : RAI-3K-48ES-5G RHI-xK-48ES-5G  
S5-EH1PxK-L RHI-yK-48ES-5G-NS  
(x=3,3.6,4.6,5,6) (y=3,3.6,4,4.6,5,6)  
Firmware Version : Inverter:A1  
Battery System:210415DPBM  
Serial Number : Engineering samples

Tested acc. to: CEI 0-21:2019-04  
CEI 0-21; V1:2020-12

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 **08.07.2022**



A handwritten signature in blue ink.  
Weichun Li

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

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



**Registration No.:** AK 50550741 0002

**Report No.:** CN210CFH 002

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

**Product:** Energy Storage system  
(Grid-Interactive Inverter With Storage Battery System)

**Identification:** As page 0001 continuation  
Remark(s) : The product maybe installed with Storage  
Battery System Dyness battery: B4850,  
PowerDepot Hxx (xx=2.5,5), Powerbox  
F-yy (yy=2.5, 5.0,7.5,10.0).  
Refer to report CN210CFH 002 for details.

**Tested acc. to:** CEI 0-21:2019-04  
CEI 0-21; V1:2020-12

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** 08.07.2022



  
**Weichun Li**

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



**OGGETTO:** Dichiarazione di conformità alla normative CEI 0-21:2019-04 e CEI 0-21;V1:2020-12 "Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica"

**SUBJECT:** Declaration of Conformity to CEI 0-21:2019-04 and CEI 0-21;V1:2020-12 "Reference technical rules for the connection of active and passive users to the LV electrical Utilities"

## Certificate No.: AK 50550741 0001-0002

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**TIPOLOGIA DI APPARATO A CUI SI RIFERISCE LA DICHIARAZIONE:**  
TYPE OF APPARATUS WHICH THE DECLARATION IS REFERED TO:

DISPOSITIVO DI INTERFACCIA Interface Device	PROTEZIONE DI INTERFACCIA Interface Protection Device	DISPOSITIVO DI CONVERSIONE STATICA Static Conversion Device	DISPOSITIVO DI GENERAZIONE ROTANTE Rotating Device
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Costruttore  
Manufacturer

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

Modello/Tipo Model/Type	RAI-3K-48ES-5G						
	B4850	PowerDep ot H2.5	PowerDep ot H5	Powerbox F-2.5	Powerbox F-5.0	Powerbox F-7.5	Powerbox F-10.0
Potenza Attiva Nominale (P <sub>NINV</sub> ) Nominal Power [W]				3000			
Max. Potenza Apparente (S <sub>MAX</sub> ) Maximum Apparent Power [VA]				3300			
Numero di unità batteria Number of battery unit	1	1	2	1	2	3	4
Potenza di Scarica Massima (P <sub>Smax</sub> )* Maximum Discharge Power [W]	1120	1120	2240	1120	2240	3000	3000
Potenza di Carica massima (P <sub>Cmax</sub> )* Maximum charging power [W]	1300	1300	2600	1300	2600	3000	3000
Capacità della batteria Capacity of battery [kWh]	2.4	2.4	4.8	2.4	4.8	7.2	9.6

Modello/Tipo Model/Type	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L						
	B4850	PowerDep ot H2.5	PowerDep ot H5	Powerbox F-2.5	Powerbox F-5.0	Powerbox F-7.5	Powerbox F-10.0
Potenza Attiva Nominale (P <sub>NINV</sub> ) Nominal Power [W]				3000			
Max. Potenza Apparente (S <sub>MAX</sub> ) Maximum Apparent Power [VA]				3300			
Numero di unità batteria Number of battery unit	1	1	2	1	2	3	4
Potenza di Scarica Massima (P <sub>Smax</sub> )* Maximum Discharge Power [W]	1120	1120	2240	1120	2240	3000	3000
Potenza di Carica massima (P <sub>Cmax</sub> )* Maximum charging power [W]	1300	1300	2600	1300	2600	3000	3000
Capacità della batteria Capacity of battery [kWh]	2.4	2.4	4.8	2.4	4.8	7.2	9.6

TÜV Rheinland LGA Products GmbH  
Tillystraße 2 · 90431 Nürnberg · Germany



**OGGETTO:** Dichiarazione di conformità alle normative CEI 0-21:2019-04 e CEI 0-21;V1:2020-12 "Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica"

**SUBJECT:** Declaration of Conformity to CEI 0-21:2019-04 and CEI 0-21;V1:2020-12 "Reference technical rules for the connection of active and passive users to the LV electrical Utilities"

## Certificate No.: AK 50550741 0001-0002

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### TIPOLOGIA DI APPARATO A CUI SI RIFERISCE LA DICHIARAZIONE: TYPE OF APPARATUS WHICH THE DECLARATION IS REFERED TO:

DISPOSITIVO DI INTERFACCIA Interface Device	PROTEZIONE DI INTERFACCIA Interface Protection Device	DISPOSITIVO DI CONVERSIONE STATICA Static Conversion Device	DISPOSITIVO DI GENERAZIONE ROTANTE Rotating Device
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Costruttore  
Manufacturer

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

Modello/Tipo Model/Type	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L						
	B4850	PowerDep ot H2.5	PowerDep ot H5	Powerbox F-2.5	Powerbox F-5.0	Powerbox F-7.5	Powerbox F-10.0
Potenza Attiva Nominale (P <sub>NIN</sub> ) Nominal Power [W]				3600			
Max. Potenza Apparente (S <sub>MAX</sub> ) Maximum Apparent Power [VA]				4000			
Numero di unità batteria Number of battery unit	1	1	2	1	2	3	4
Potenza di Scarica Massima (P <sub>Smax</sub> )* Maximum Discharge Power [W]	1120	1120	2240	1120	2240	3360	3600
Potenza di Carica massima (P <sub>Cmax</sub> )* Maximum charging power [W]	1300	1300	2600	1300	2600	3600	3600
Capacità della batteria Capacity of battery [kWh]	2.4	2.4	4.8	2.4	4.8	7.2	9.6

Modello/Tipo Model/Type	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L						
	B4850	PowerDep ot H2.5	PowerDep ot H5	Powerbox F-2.5	Powerbox F-5.0	Powerbox F-7.5	Powerbox F-10.0
Potenza Attiva Nominale (P <sub>NIN</sub> ) Nominal Power [W]				4600			
Max. Potenza Apparente (S <sub>MAX</sub> ) Maximum Apparent Power [VA]				4600			
Numero di unità batteria Number of battery unit	1	1	2	1	2	3	4
Potenza di Scarica Massima (P <sub>Smax</sub> )* Maximum Discharge Power [W]	1120	1120	2240	1120	2240	3360	4180
Potenza di Carica massima (P <sub>Cmax</sub> )* Maximum charging power [W]	1300	1300	2600	1300	2600	3900	4600
Capacità della batteria Capacity of battery [kWh]	2.4	2.4	4.8	2.4	4.8	7.2	9.6

TÜV Rheinland LGA Products GmbH  
Tillystraße 2 · 90431 Nürnberg · Germany



**OGGETTO:** Dichiarazione di conformità aila normative CEI 0-21:2019-04 e CEI 0-21;V1:2020-12 "Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica"

**SUBJECT:** Declaration of Conformity to CEI 0-21:2019-04 and CEI 0-21;V1:2020-12 "Reference technical rules for the connection of active and passive users to the LV electrical Utilities"

## Certificate No.: AK 50550741 0001-0002

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**TIPOLOGIA DI APPARATO A CUI SI RIFERISCE LA DICHIARAZIONE:**  
TYPE OF APPARATUS WHICH THE DECLARATION IS REFERED TO:

DISPOSITIVO DI INTERFACCIA Interface Device	PROTEZIONE DI INTERFACCIA Interface Protection Device	DISPOSITIVO DI CONVERSIONE STATICA Static Conversion Device	DISPOSITIVO DI GENERAZIONE ROTANTE Rotating Device
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Costruttore  
Manufacturer

**Ginlong technologies Co., Ltd.**

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

Modello/Tipo  
Model/Type

RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L

	B4850	PowerDepot H2.5	PowerDepot H5	Powerbox F-2.5	Powerbox F-5.0	Powerbox F-7.5	Powerbox F-10.0
Potenza Attiva Nominata ( $P_{NINV}$ ) Nominal Power [W]				5000			
Max. Potenza Apparente ( $S_{MAX}$ ) Maximum Apparent Power [VA]				5500			
Numero di unità batteria Number of battery unit	1	1	2	1	2	3	4
Potenza di Scarica Massima ( $P_{Smax}$ )* Maximum Discharge Power [W]	1120	1120	2240	1120	2240	3360	4180
Potenza di Carica massima ( $P_{Cmax}$ )* Maximum charging power [W]	1300	1300	2600	1300	2600	3900	5000
Capacità della batteria Capacity of battery [kWh]	2.4	2.4	4.8	2.4	4.8	7.2	9.6

Modello/Tipo  
Model/Type

RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L

	B4850	PowerDepot H2.5	PowerDepot H5	Powerbox F-2.5	Powerbox F-5.0	Powerbox F-7.5	Powerbox F-10.0
Potenza Attiva Nominata ( $P_{NINV}$ ) Nominal Power [W]				6000			
Max. Potenza Apparente ( $S_{MAX}$ ) Maximum Apparent Power [VA]				6600			
Numero di unità batteria Number of battery unit	1	1	2	1	2	3	4
Potenza di Scarica Massima ( $P_{Smax}$ )* Maximum Discharge Power [W]	1120	1120	2240	1120	2240	3360	4180
Potenza di Carica massima ( $P_{Cmax}$ )* Maximum charging power [W]	1300	1300	2600	1300	2600	3900	5250
Capacità della batteria Capacity of battery [kWh]	2.4	2.4	4.8	2.4	4.8	7.2	9.6

TÜV Rheinland LGA Products GmbH  
Tillystraße 2 · 90431 Nürnberg · Germany



**TÜVRheinland®**  
Precisely Right.



**OGGETTO:** Dichiarazione di conformità alla normative CEI 0-21:2019-04 e CEI 0-21;V1:2020-12 "Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica"

**SUBJECT:** Declaration of Conformity to CEI 0-21:2019-04 and CEI 0-21;V1:2020-12 "Reference technical rules for the connection of active and passive users to the LV electrical Utilities"

## Certificate No.: AK 50550741 0001-0002

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*(\*) The inverter have a PV input and AC output with the batteries system and it's compliant to Annex A, B and Bbis of standard CEI 0-21  
The nominal charging and discharging power can be reached only according with a minimum number of battery modules connected to the inverter with limitation of the inverter's capability.  
Numbers of battery modules recommended by the manufacturer: 1-40(B4850)*

Firmware release <i>Firmware</i>	Inverter: A1 Battery system: 210415DPBM
Numero di Fasi <i>Number of phases</i>	Monofase Single-Phase
Note <i>Remarks</i>	Il dispositivo è in grado di limitare la I <sub>dc</sub> allo 0,5% della corrente nominale. <i>The device is capable to limit the I<sub>dc</sub> to 0,5% of the nominal current.</i>
laboratorio di prova <i>Test laboratory</i>	TÜV Rheinland (Shanghai) Co., Ltd. Accreditation CNAS no. L3038

Esaminati i Fascicoli Prove N.: CN210CFH 002 emesso da TÜV Rheinland (Shanghai) S.r.l.  
*Having assessed the Test Files N. CN210CFH 002 issued by TÜV Rheinland (Shanghai) Co., Ltd.*

Si dichiara che i prodotti indicati soddisfano i requisiti della CEI 0-21:2019-04 e CEI 0-21;V1:2020-12 "Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica"  
*We declare that the products indicated meet the requirements laid down by CEI 0-21:2019-04 and CEI 0-21;V1:2020-12 "Reference technical rules for the connection of active and passive users to the LV electrical Utilities"*

Validità della Dichiarazione  
*Validity of the Declaration*

Questa Dichiarazione è valida per i prodotti indicate, così come descritt 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: 08.07.2022

Signature :



TÜV Rheinland LGA Products GmbH  
Tillystraße 2 · 90431 Nürnberg · Germany



**TÜVRheinland®**  
Precisely Right.



# Compliance Document

No. D 086470 0128 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

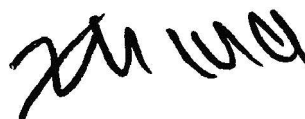
**Product:**

**Converter**  
**Grid-interactive inverter with storage**  
**battery system**

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.:** 704092201818-00

**Date,** 2023-03-07



( Zhengdong Ma )

# Compliance Document

No. D 086470 0128 Rev. 00

**Model(s):**

**Grid-interactive inverter:** RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, RAI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P3K-L-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS, S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS

**Storage battery system:** 5K3-XP-EU

## Parameters:

The following generators meet the requirements of CEI 0-21:2022						
Manufacturer	Ginlong Technologies Co., Ltd. No.57 Jintong Road, Binhai Industrial Park, Xiangshan, 315712 Ningbo, Zhejiang, PEOPLE'S REPUBLIC OF CHINA					
Equipment type	Grid-interactive inverter with storage battery system					
Brand	Solis					
Number of phase	<input checked="" type="checkbox"/> Single phase <input type="checkbox"/> Three phase Frequency: 50Hz Voltage: a.c. 230V					
Primary energy used	<input checked="" type="checkbox"/> Solar <input checked="" type="checkbox"/> Storage <input type="checkbox"/> Wind <input type="checkbox"/> Hydroelectric <input type="checkbox"/> CHP <input type="checkbox"/> Other: Note: RAI-3K-48ES-5G can be operated with battery input only, other models can be operated with both PV and battery inputs.					
Generator model	<table border="1"> <tr> <td>RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3K-L-NS, RAI-3K-48ES-5G</td> <td>RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS</td> <td>RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS</td> <td>RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P5K-L-NS</td> <td>RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L, S5-EH1P6K-L-NS</td> </tr> </table>	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3K-L-NS, RAI-3K-48ES-5G	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS	RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P5K-L-NS	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L, S5-EH1P6K-L-NS
RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3K-L-NS, RAI-3K-48ES-5G	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS	RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P5K-L-NS	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L, S5-EH1P6K-L-NS		
Rated power	<table border="1"> <tr> <td>3000 W / 3300 VA</td> <td>3600 W / 4000 VA</td> <td>4600 W / 4600 VA</td> <td>5000 W / 5500 VA</td> <td>6000 W / 6600 VA</td> </tr> </table>	3000 W / 3300 VA	3600 W / 4000 VA	4600 W / 4600 VA	5000 W / 5500 VA	6000 W / 6600 VA
3000 W / 3300 VA	3600 W / 4000 VA	4600 W / 4600 VA	5000 W / 5500 VA	6000 W / 6600 VA		
The generator:	<input type="checkbox"/> is suitable for installation in systems with an output power of more than 11.08 kW <input checked="" type="checkbox"/> is capable of limiting Idc to 0.5% of rated current: <input checked="" type="checkbox"/> uses a DC-sensitive protection function <input type="checkbox"/> uses a transformer operating at mains frequency					

# Compliance Document

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Section B	Characteristics of the interface protection system					
	Manufacturer	Ginlong Technologies Co., Ltd.				
	Model	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, RAI-3K-48ES-5G, RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3.6K-L, S5-EH1P4.6K-L, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P3K-L-NS, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS, S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS				
	Type	<input checked="" type="checkbox"/> Integrated <input type="checkbox"/> Not integrated				
Section C	Characteristics of inverter(s)					
	Model of inverter	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3K-L-NS, RAI-3K-48ES-5G	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS	RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P5K-L-NS	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L, S5-EH1P6K-L-NS
	Manufacturer of inverter	Ginlong Technologies Co., Ltd.				
	Firmware version	A1				
	Rated power of inverter (P <sub>NINV</sub> )	3000 W	3600 W	4600 W	5000 W	6000 W

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Characteristics of the Storage System (SdA)						
Section E	Representative Combination	RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3K-L-NS, RAI-3K-48ES-5G with 5K3-XP-EU (1 -15 pieces)	RHI-3.6K-48ES-5G, RHI-3.6K-48ES-5G-NS, RHI-4K-48ES-5G-NS, S5-EH1P3.6K-L, S5-EH1P3.6K-L-NS, S5-EH1P4K-L-NS with 5K3-XP-EU (1 -15 pieces)	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6K-L-NS with 5K3-XP-EU (1 -15 pieces)	RHI-5K-48ES-5G, RHI-5K-48ES-5G-NS, S5-EH1P5K-L, S5-EH1P5K-L-NS with 5K3-XP-EU (1 -15 pieces)	RHI-6K-48ES-5G, RHI-6K-48ES-5G-NS, S5-EH1P6K-L, S5-EH1P6K-L-NS with 5K3-XP-EU (1 -15 pieces)
	Psn (nominal discharge power)	3000	3600	4600	4600	4600
	Pcn (nominal charging power)	3000	3600	4600	5000	5600
	Psmax (max. discharge power)	3000	3600	4600	4600	4600
	Pcmax (max. charging power)	3000	3600	4600	5000	5600
	Type	<input checked="" type="checkbox"/> Bidirectional <input type="checkbox"/> Monodirectional				
Batteries that can be used with the above static converters						
Brand	WECO					
Technology	Li-Ion					
Models	5K3-XP-EU					
CUS module (kWh)	5.37					
BMS firmware version	6011					
Number of modules	1-15 pieces					
Note	Batteries are not contained in the inverter and should be installed according to local regulations and in accordance with WECO instruction.					

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Section I	References of the laboratories that performed the tests and their test reports (RdP)		
	Selected method	<input checked="" type="checkbox"/> Tests performed under the supervision of a certification body	<input checked="" type="checkbox"/> Tests performed by an accredited laboratory
	Test Reports (RdP)	1) Test report according to Annex A & Bbis: 70.409.20.081.14-00, 70.409.20.081.14-01, 70.409.21.036.20-00, 70.409.21.036.20-01, 70.409.21.036.20-02, 70.409.22.018.18-00	2) Test report EMC: a) C19-447-WT-01; b) C19-447-WT-02; c) 64772228001902
	Issued by	Testing lab: 1) Manufacturer's laboratory Tests performed under supervision of certifier from TÜV SÜD Product Service GmbH	1) -a) & -b) Shanghai Inspection and Testing Institute of Instruments and Automation Systems Co.,Ltd. 1) -c) TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
	Accreditation No.	D-ZE-11321-01-00	1) -a) & b) CNAS L0130 1) -c) CNAS L3584
	Accreditation body ref.	DAKKS	CNAS
Section M	Reference of the certification body		
	Certification Body	TÜV SÜD Product Service GmbH DAKKS accreditation certificate D-ZE-11321-01-00 according to DIN EN ISO/IEC 17065:2013	

**Tested according to:**

CEI 0-21:2022