



Product Service

Compliance Document

No. D 086470 0088 Rev. 04

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 energy inverter with storage battery system**Model(s):** Hybrid inverter:
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, 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,
S5-EH1P4.6K-L-NS, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS

AC coupled energy inverter: RAI-3K-48ES-5G

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:** See next pages.**Tested according to:** CEI 0-21:2022/V2:2024

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

Test report no.: 704092103620-04**Date,** 2024-10-23

(Kai Zhao)



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The following generators meet the requirements of CEI 0-21:2022/V2:2024						
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	Hybrid inverter and AC coupled energy 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:				
	Generator model	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	3000 W	3600 W	4600 W	5000 W	6000 W
	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. No.57 Jintong Road, Binhai Industrial Park, Xiangshan, 315712 Ningbo, Zhejiang, PEOPLE'S REPUBLIC OF CHINA				
	Model	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
	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. No.57 Jintong Road, Binhai Industrial Park, Xiangshan, 315712 Ningbo, Zhejiang, PEOPLE'S REPUBLIC OF CHINA				
	Firmware version	A2				
	Rated power of inverter (P _{NINV})	3000 W	3600 W	4600 W	5000 W	6000 W



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Characteristics of the storage system (SdA)						
Section E	Representative Combination	RAI-3K-48ES-5G, RHI-"X"K-48ES-5G, RHI-"Y"K-48ES-5G-NS, S5-EH1P"X"K-L, S5-EH1P"Y"K-L-NS ("X"=3, 3.6, 4.6, 5, 6, "Y"=3, 3.6, 4, 4.6, 5, 6) with US2000 or US2000C or Phantom-S (1 piece)	RAI-3K-48ES-5G, RHI-"X"K-48ES-5G, RHI-"Y"K-48ES-5G-NS, S5-EH1P"X"K-L, S5-EH1P"Y"K-L-NS ("X"=3, 3.6, 4.6, 5, 6, "Y"=3, 3.6, 4, 4.6, 5, 6) with US2000 or US2000C or Phantom-S (2 pieces)	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3K-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-"X"K-48ES-5G, RHI-"X"K-48ES-5G-NS, S5-EH1P"X"K-L, S5-EH1P"X"K-L-NS ("X"=4.6, 5, 6) with US2000 or US2000C or Phantom-S (3 pieces)
	Psn (nominal discharge power)	1100 W	2300 W	3000 W	3000 W	3450 W
	Pcn (nominal charging power)	1300 W	2750 W	3000 W	3600 W	4200 W
	Psmax (max. discharge power)	1100 W	2300 W	3000 W	3000 W	3450 W
	Pcmax (max. charging power)	1300 W	2750 W	3000 W	3600 W	4200 W
Representative Combination	RHI-4.6K-48ES-5G, RHI-4.6K-48ES-5G-NS, S5-EH1P4.6K-L, S5-EH1P4.6-K-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, S5-EH1P5K-L, S5-EH1P6K-L, S5-EH1P5K-L-NS, S5-EH1P6K-L-NS with US2000 or US2000C or Phantom-S (4-8 pieces)	RAI-3K-48ES-5G, RHI-"X"K-48ES-5G, RHI-"Y"K-48ES-5G-NS, S5-EH1P"X"K-L, S5-EH1P"Y"K-L-NS ("X"=3, 3.6, 4.6, 5, 6, "Y"=3, 3.6, 4, 4.6, 5, 6) with US3000 or US3000C (1 piece)	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3K-L-NS with US3000 or US3000C (2-8 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 US3000 or US3000C (2-8 pieces)	
Psn (nominal discharge power)	4600 W	4600 W	1700 W	3000 W	3000 W	
Pcn (nominal charging power)	4600 W	5000 W	2050 W	3000 W	3600 W	
Psmax (max. discharge power)	4600 W	4600 W	1700 W	3000 W	3000 W	
Pcmax (max. charging power)	4600 W	5000 W	2050 W	3000 W	3600 W	
Representative Combination	RHI-"X"K-48ES-5G, RHI-"X"K-48ES-5G-NS, S5-EH1P"X"K-L, S5-EH1P"X"K-L-NS ("X"=4.6, 5, 6) with US3000 or US3000C (2 pieces)	RHI-4.6K-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)	RAI-3K-48ES-5G, RHI-"X"K-48ES-5G, RHI-"Y"K-48ES-5G-NS, S5-EH1P"X"K-L, S5-EH1P"Y"K-L-NS ("X"=3, 3.6, 4.6, 5, 6, "Y"=3, 3.6, 4, 4.6, 5, 6) with Force L1 or Force L2 (2 pieces)	RAI-3K-48ES-5G, RHI-"X"K-48ES-5G, RHI-"Y"K-48ES-5G-NS, S5-EH1P"X"K-L, S5-EH1P"Y"K-L-NS ("X"=3, 3.6, 4.6, 5, 6, "Y"=3, 3.6, 4, 4.6, 5, 6) with Force L1 or Force L2 (3 pieces)	
Psn (nominal discharge power)	3400 W	4600 W	4600 W	1350 W	2050 W	
Pcn (nominal charging power)	4100 W	4600 W	5000 W	1650 W	2450 W	



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power)					
P _{smax} (max. discharge power)	3400 W	4600 W	4600 W	1350 W	2050 W
P _{cmax} (max. charging power)	4100 W	4600 W	5000 W	1650 W	2450 W
Representative Combination	RAI-3K-48ES-5G, RHI-3K-48ES-5G, RHI-3K-48ES-5G-NS, S5-EH1P3K-L, S5-EH1P3K-L-NS with Force L1 or Force L2 (4 pieces)	RHI-"X"K-48ES-5G, RHI-"Y"K-48ES-5G-NS, S5-EH1P"X"K-L, S5-EH1P"Y"K-L-NS ("X"=3.6, 4.6, 5, 6, "Y"=3.6, 4, 4.6, 5, 6) 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-"X"K-48ES-5G, RHI-"X"K-48ES-5G-NS, S5-EH1P"X"K-L, S5-EH1P"X"K-L-NS ("X"=4.6, 5, 6) with Force L1 (5 pieces)
P _{sn} (nominal discharge power)	2750 W	2750 W	3000 W	3000 W	3400 W
P _{cn} (nominal charging power)	3000 W	3300 W	3000 W	3600 W	4100 W
P _{smax} (max. discharge power)	2750 W	2750 W	3000 W	3000 W	3400 W
P _{cmax} (max. charging power)	3000 W	3300 W	3000 W	3600 W	4100 W
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 _{sn} (nominal discharge power)	4100 W	4100 W	4600 W	4600 W	-
P _{cn} (nominal charging power)	4600 W	5000 W	4600 W	5000 W	-
P _{smax} (max. discharge power)	4100 W	4100 W	4600 W	4600 W	-
P _{cmax} (max. charging power)	4600 W	5000 W	4600 W	5000 W	-
Type	<input checked="" type="checkbox"/> Bidirectional <input type="checkbox"/> Monodirectional				
Batteries that can be used with the above inverters					
Brand	Pylon				
Technology	Li-Ion				
Models	US2000 or US2000C or Phantom-S		US3000 or US 3000C or Force L1 or Force L2		
CUS (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)		



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	Note	Batteries are not contained in the inverter and should be installed according to local regulations and in accordance with Pylon 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)	Test report according to Annex A & Bbis: 704092008114-00 & 704092008114-01 & 704092103620-00 & 704092103620-01 & 704092103620-02 & 704092103620-03 & 704092103620-04.	Test report EMC: a) C19-447-WT-01 & b) C19-447-WT-02 & c) 64772228001902.
	Issued by	Testing lab: Ginlong Technologies Co., Ltd. Tests performed under supervision of certifier from TÜV SÜD Product Service GmbH	Testing lab: -a) & -b) Shanghai Inspection and Testing Institute of Instruments and Automation Systems Co.,Ltd. -c) TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
	Accreditation No.	D-ZE-11321-01-00	-a) & b) CNAS L0130 -c) CNAS L3584
	Accreditation body reference.	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	