



Product Service

# CERTIFICATE

No. B 086470 0032 Rev. 03

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

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

**Certification Mark:**



**Product:**

**Converter  
Hybrid 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. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: [www.tuvsud.com/ps-cert](http://www.tuvsud.com/ps-cert)

**Test report no.:** 704091623701-03

**Valid until:** 2026-04-28

**Date,** 2021-04-29

( Zhengdong Ma )

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## Model(s):

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,  
 RHI-3K-48ES-5G-PLUS, RHI-3.6K-48ES-5G-PLUS,  
 RHI-4.6K-48ES-5G-PLUS, RHI-5K-48ES-5G-PLUS,  
 RHI-6K-48ES-5G-PLUS.

## Parameters:

Model name	RHI-3K-48ES	RHI-3.6K-48ES	RHI-4.6K-48ES	RHI-5K-48ES
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.			
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.			
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			
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.

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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)			
AC input parameters:				
Rated Voltage:	230 Va.c.			
Current (Maximum Continuous):	23,9 Aa.c.			
Rated Frequency:	50 Hz			
Others:				
Operating Temperature Range:	-25 °C...+60 °C			
Protective Class:	I			
Ingress Protection:	IP65			
Oversvoltage Category:	II(PV), III(MAINS)			
Inverter Topology:	Non-isolated			

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
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.		
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.		
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		
AC-Output (Grid Side) parameters:			
Rated Output Voltage:	230 Va.c.		
Rated Output Frequency:	50 Hz		

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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
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)		
AC input parameters:			
Rated Voltage:	230 Va.c.		
Current (Maximum Continuous):	26,1 Aa.c.		
Rated Frequency:	50 Hz		
Others:			
Operating Temperature Range:	-25 °C...+60 °C		
Protective Class:	I		
Ingress Protection:	IP65		
Overvoltage Category:	II(PV), III(MAINS)		
Inverter Topology:	Non-isolated		

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
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.		
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.		
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		
AC-Output (Grid Side) parameters:			
Rated Output Voltage:	230 Va.c.		
Rated Output Frequency:	50 Hz		

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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
Rated Output Power:	4600 W	5000 W	6000 W
Max. Apparent Output Power:	4600VA	5500VA	6000 VA
Max. Output Current:	23 Aa.c.	23,9 Aa.c.	26,1 Aa.c.
Power Factor(adj.):	0,8(lagging)...0,8(leading)		
AC input parameters:			
Rated Voltage:	230 Va.c.		
Current (Maximum Continuous):	26,1 Aa.c.		
Rated Frequency:	50 Hz		
Others:			
Operating Temperature Range:	-25 °C...+60 °C		
Protective Class:	I		
Ingress Protection:	IP65		
Oversvoltage Category:	II(PV), III(MAINS)		
Inverter Topology:	Non-isolated		

Model name	S5-EH1P3K-L, RHI-3K-48ES-5G-PLUS	S5-EH1P3.6K-L, RHI-3.6K-48ES-5G-PLUS	S5-EH1P4.6K-L, RHI-4.6K-48ES-5G-PLUS
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.
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.
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
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

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Model name	S5-EH1P3K-L, RHI-3K-48ES-5G-PLUS	S5-EH1P3.6K-L, RHI-3.6K-48ES-5G-PLUS	S5-EH1P4.6K-L, RHI-4.6K-48ES-5G-PLUS
Rated Output Power:	3000 W	3600 W	4600 W
Max. Apparent Output Power:	3300VA	4000VA	4600VA
Max. Output Current:	14,5 Aa.c.	17,5 Aa.c.	20 Aa.c.
Power Factor(adj.):	0,8(lagging)...0,8(leading)		
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		
Others:			
Operating Temperature Range:	-25 °C...+60 °C		
Protective Class:	I		
Ingress Protection:	IP65		
Overvoltage Category:	II(PV), III(MAINS)		
Inverter Topology:	Non-isolated		

Model name	S5-EH1P5K-L, RHI-5K-48ES-5G-PLUS	S5-EH1P6K-L, RHI-6K-48ES-5G-PLUS
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.	
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.	
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	
AC-Output (Grid Side) parameters:		
Rated Output Voltage:	230 Va.c.	
Rated Output Frequency:	50 Hz	

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Model name	S5-EH1P5K-L, RHI-5K-48ES-5G-PLUS	S5-EH1P6K-L, RHI-6K-48ES-5G-PLUS
Rated Output Power:	5000 W	6000 W
Max. Apparent Output Power:	5500VA	6000 VA
Max. Output Current:	24 Aa.c.	29 Aa.c.
Power Factor(adj.):	0,8(lagging)...0,8(leading)	
AC input parameters:		
Rated Voltage:	230 Va.c.	
Current (Maximum Continuous):	34,5 Aa.c.	
Rated Frequency:	50 Hz	
Others:		
Operating Temperature Range:	-25 °C...+60 °C	
Protective Class:	I	
Ingress Protection:	IP65	
Overvoltage Category:	II(PV), III(MAINS)	
Inverter Topology:	Non-isolated	

**Tested according to:** IEC 62109-1(ed.1)  
IEC 62109-2(ed.1)  
EN 62109-1:2010  
EN 62109-2:2011