

# Certificate of Conformity

Certificate Number: CN-PV-220111

On the basis of the tests undertaken, the sample<s> of the below product have been found to comply with the requirements of the referenced specification<s>/standard<s> at the time the tests were carried out. It does not imply that Intertek has performed any surveillance or control of the manufacture(s). The manufacturer(s) shall ensure that the manufacturing process assures compliance of the production units with the examined products mentioned in this certificate.

**Applicant:** Shenzhen SOFARSOLAR Co., Ltd.  
11/F., Gaoxinqi Technology Building, No.67 Area, Xingdong Community,  
Xin'an Sub-district, Bao'an District, Shenzhen City, China

**Product:** Inverter Module

**Ratings & Principle Characteristics:** See appendix of Certificate of Conformity

**Model:** ESI 3K-S1, ESI 3.68K-S1, ESI 4K-S1, ESI 4.6K-S1, ESI 5K-S1,  
ESI 5K-S1-A, ESI 6K-S1

**Brand Name<s>:**



**Product Complies with:** EN 50549-1: 2019, Requirements for generating plants to be connected in parallel with distribution networks  
Part 1: Connection to a LV distribution network - Generating plants up to and including type B  
Type approval for Ireland interface settings

**Certificate Issuing Office Name & Address:** Intertek Testing Services Ltd. Shanghai  
West Area, 2<sup>nd</sup> Floor, No. 707, Zhangyang Road  
China (Shanghai) Pilot Free Trade Zone, Shanghai, P. R. China  
Accredited by ACCREDIA in accordance with ISO/IEC 17065:2012

**Test Report No.<s>:** 220415015GZU-002  
According to Annex H of the standard EN 50549-1:2019, generating plants compliant with the clauses of this European Standard are considered to be compliant with the relevant Article of COMMISSION REGULATION (EU) 2016/631, provided that all settings as provided by the DSO and the responsible party are complied with. Additional information in Appendix.

**Signature**

**Certification Manager: Grady Ye**

**Date: 1 June 2022**



PRD N° 306B

This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-220111.

MODEL	ESI 3K-S1	ESI 3.68K-S1	ESI 4K-S1	ESI 4.6K-S1
Max.DC input voltage	550Vdc			
MPPT voltage range	85~520Vdc			
Max.PV Isc	2*22.5A			
Rated battery voltage	400V			
Max.charging/discharging current	20A			
Max.charging/discharging power	3000W	3680W	4000W	4600W
Rated grid voltage	230V,50Hz			
Rated output voltage	230V,50/60Hz			
Max.output current	15A	16A	20A	20.9A
Power Factor	1 default (adjustable+/-0.8)			
Rated output power	3000W	3680W	4000W	4600W
Rated apparent power	3000VA	3680VA	4000VA	4600VA
Ambient Temperature	-10~ +45°C			
Protection Degree	IP65			
Protection Class	Class I			
Inverter topology	Non-Isolated			
Overvoltage Category	AC III, DC II			
Firmware version:	V000001			

This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-220111.

MODEL	ESI 5K-S1	ESI 5K-S1-A	ESI 6K-S1
Max.DC input voltage	550Vdc		
MPPT voltage range	85~520Vdc		
Max.PV Isc	2*22.5A		
Rated battery voltage	400V		
Max.charging/discharging current	20A		
Max.charging/discharging power	5000W	5000W	6000W
Rated grid voltage	230V,50Hz		
Rated output voltage	230V,50/60Hz		
Max.output current	25A	22.7A	30A
Power Factor	1 default (adjustable+/-0.8)		
Rated output power	5000W	5000W	6000W
Rated apparent power	5000VA	5000VA	6000VA
Ambient Temperature	-10~ +45 °C		
Protection Degree	IP65		
Protection Class	Class I		
Inverter topology	Non-Isolated		
Overvoltage Category	AC III, DC II		
Firmware version:	V000001		

This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-220111.

Interface protection of Ireland interface settings:

Parameter		Trip setting	Clearance time
Pre I.S EN 50549-1 Single Stage Voltage Setting		269 V / 468 V	0.7 s
I.S. EN 50549-1 Two Stage Voltage Settings	Stage 1	269 V / 468 V	70 s
	Stage 2	281 V / 488 V	0.7 s
Under voltage		191 V / 332 V	0.7 s
Over frequency*		52 Hz	0.5 s
Under frequency*		47 Hz	0.5 s
An explicit Loss of Mains functionality shall be included. Established methods such as, but not limited to, Rate of Change of Frequency, or Source Impedance Measurement may be used. Where Source Impedance is measured, this shall be achieved by purely passive means. Any implementation which involves the injection of pulses onto the DSO network, shall not be permitted.			
ROCOF (**)		1.0 Hz/s	0.6 s
Vector Shift		Not permitted	

This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.