

# Test Verification of Conformity

Verification Number: VOC181016129GZU-001/002

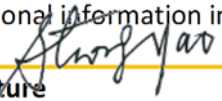
On the basis of the referenced test report(s), sample(s) tested of the below product have been found to comply with the standards harmonized with the directives listed on this verification at the time the tests were carried out. Other standards and Directives may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it <them>.

Once compliance with all product relevant **CE** mark directives are verified, including any relevant e.g. risk assessment and production control, the manufacturer may indicate compliance by signing a Declaration of Conformity themselves and applying the mark to products identical to the tested sample(s).

Applicant Name & Address:	Shenzhen Growatt New Energy Technology Co.,Ltd 1st East & 3rd Floor of Building A, Building B, Jiayu Industrial Park, #28, GuangHui Road, LongTeng Community, Shiyan Street, Baoan District, Shenzhen, P.R.China
Product Description:	Hybrid inverter / AC Coupled inverter
Models/Type References:	SPH 4000TL3 BH, SPH 5000TL3 BH, SPH 6000TL3 BH, SPH 7000TL3 BH, SPH 8000TL3 BH, SPH 10000TL3 BH SPA 4000TL3 BH, SPA 5000TL3 BH, SPA 6000TL3 BH, SPA 7000TL3 BH, SPA 8000TL3 BH, SPA 10000TL3 BH
Ratings & Principle Characteristics:	See Appendix
Brand Name(s):	Growatt
Standard(s)/Directive(s):	EN 61000-6-3:2007+A1: 2011 EN 61000-6-1:2007 EN 61000-6-4:2007+A1:2011 EN 61000-6-2:2005 EMC Directive 2014/30/EU
Verification Issuing Office Name & Address:	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD Guangzhou, China
Test Report Number(s):	181016129GZU-001/002

Additional information in Appendix.

Signature



**Name: Strong Yao**

**Position: Manager**

**Date: 07 September 2019**

This Verification 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 Verification. Only the Client is authorized to permit copying or distribution of this Verification. 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. The observations and test/inspection results referenced in this Verification are relevant only to the sample tested/inspected. This Verification by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

## APPENDIX: Test Verification of Conformity

This is an Appendix to Test Verification of Conformity Number: VOC181016129GZU-001/002

Ratings & Principle Characteristics:

Model	SPH 4000	SPH 5000	SPH 6000	SPH 7000	SPH 8000	SPH 10000
Specifications	TL3 BH	TL3 BH	TL3 BH	TL3 BH	TL3 BH	TL3 BH
Input data(DC)						
Max. recommended PV power (for module STC)	5200W	6500W	7800W	9100W	10400W	13000W
Max. DC voltage	1000V	1000V	1000V	1000V	1000V	1000V
Start voltage	160V	160V	160V	160V	160V	160V
Nominal voltage	600V	600V	600V	600V	600V	600V
MPP voltage range	160~1000V	160~1000V	160~1000V	160~1000V	160~1000V	160~1000V
No. of MPP trackers	2	2	2	2	2	2
No. of PV strings per MPP trackers	1	1	1	1	1	1
Max. input current per MPP trackers	12A/12A	12A/12A	12A/12A	12A/12A	12A/12A	12A/12A
Max. short-circuit current per MPP trackers	15A/15A	15A/15A	15A/15A	15A/15A	15A/15A	15A/15A
Output data(AC)						
AC nominal power	4000W	5000W	6000W	7000W	8000W	10000W
Max. AC apparent power	4000VA	5000VA	6000VA	7000VA	8000VA	10000VA
Nominal AC voltage	3W+N+PE , 230V/400V;					
AC grid frequency	50/60Hz;					
Max. output current	6.1A	7.6A	9.1A	10.6A	12.1A	15.2A
Power factor	0.8leading ~ 0.8lagging					

This Verification 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 Verification. Only the Client is authorized to permit copying or distribution of this Verification. 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. The observations and test/inspection results referenced in this Verification are relevant only to the sample tested/inspected. This Verification by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

Stand alone(AC power)						
AC nominal output power	4000W	5000W	6000W	7000W	8000W	10000W
Max. AC apparent power	4000VA	5000 VA	6000 VA	7000 VA	8000 VA	10000 VA
Nominal AC voltage	3W+N+PE , 230V/400V;					
Nominal AC frequency	50/60Hz					
Max. output current	6.1A	7.6A	9.1A	10.6A	12.1A	15.2A
Battery data ( DC )						
Battery voltage range	160~550V					
Max. charging / discharging current	25A					
Continuous charging / discharging power	4000W	5000W	6000W	7000W	8000W	10000W
Type of battery	lithium battery / Lead-acid battery					
Capacity of battery	5~50kWh					
Others						
Technology	Transformerless					
Protection degree	IP 65					
Operating temperature range	-25 °C ~ +60 °C With derating above 45 °C					
Pollution degree	III					
Protective Class	Class I					

This Verification 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 Verification. Only the Client is authorized to permit copying or distribution of this Verification. 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. The observations and test/inspection results referenced in this Verification are relevant only to the sample tested/inspected. This Verification by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

Model Specifications	SPA 4000	SPA 5000	SPA 6000	SPA 7000	SPA 8000	SPA 10000
	TL3 BH	TL3 BH	TL3 BH	TL3 BH	TL3 BH	TL3 BH
<b>Output data(AC)</b>						
AC nominal power	4000W	5000W	6000W	7000W	8000W	10000W
Max. AC apparent power	4000VA	5000VA	6000VA	7000VA	8000VA	10000VA
Nominal AC voltage	3W+N+PE , 230V/400V;					
AC grid frequency	50/60Hz;					
Max. output current	6.1A	7.6A	9.1A	10.6A	12.1A	15.2A
Power factor	0.8leading ~ 0.8lagging					
<b>Stand alone(AC power)</b>						
AC nominal output power	4000W	5000W	6000W	7000W	8000W	10000W
Max. AC apparent power	4000VA	5000 VA	6000 VA	7000 VA	8000 VA	10000 VA
Nominal AC voltage	3W+N+PE , 230V/400V;					
Nominal AC frequency	50/60Hz					
Max. output current	6.1A	7.6A	9.1A	10.6A	12.1A	15.2A
<b>Battery data ( DC )</b>						
Battery voltage range	160~550V					
Max. charging / discharging current	25A					
Type of battery	lithium battery / Lead-acid battery					
Capacity of battery	5~50kWh					
<b>Others</b>						
Technology	Transformerless					
Protection degree	IP 65					
Operating temperature range	-25 °C ~ +60 °C With derating above 45 °C					
Pollution degree	III					
Protective Class	Class I					



**Signature**

**Name: Strong Yao**

**Position: Manager**

**Date: 07 September 2019**

This Verification 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 Verification. Only the Client is authorized to permit copying or distribution of this Verification. 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. The observations and test/inspection results referenced in this Verification are relevant only to the sample tested/inspected. This Verification by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.