

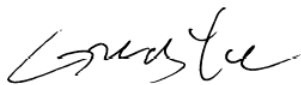
# Certificate of Conformity

Certificate Number: CN-PV-200051

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

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
Ratings & Principle Characteristics:	See Annex to Certificate of Conformity
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
Brand Name:	Growatt
Specification/Standard:	TOR Erzeuger Typ A Version 1.0:1.8.2019 OVE-Richtlinie R 25:2020-03-01 Connection and parallel operation of power generation plants of type A and of small generation plants (maximum capacity <250 kW and nominal voltage <110 kV)
Certificate Issuing Office Name & Address:	Intertek Testing Services Ltd. Shanghai 2/F (West Side), No. 707, Zhangyang Road, Free Trade Experimental Area, Shanghai, P. R. China
Test Report Number:	200109117GZU-002

Additional information in Appendix.



**Signature**

**Certification Manager: Grady Ye**

**Date: 15 June 2020**

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-200051

Ratings &  
Principle  
Characteristics:

Model	SPH 4000	SPH 5000	SPH 6000	SPH 7000	SPH 8000	SPH 10000
	TL3 BH	TL3 BH	TL3 BH	TL3 BH	TL3 BH	TL3 BH
<b>Specifications</b>						
<b>Input data(DC)</b>						
Max. recommended PV power (for module STC)	5200W	6500W	7800W	9100W	10400W	13000W
Max. DC voltage	1000V	1000V	1000V	1000V	1000V	1000V
Start voltage	120V	120V	120V	120V	120V	120V
Nominal voltage	600V	600V	600V	600V	600V	600V
MPP voltage range	120~1000 V	120~1000 V	120~1000 V	120~1000 V	120~1000 V	120~1000 V
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
<b>Output data(/Input 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	50Hz;					
Max. output current	6.1A	7.6A	9.1A	10.6A	12.1A	15.2A
Power factor	0.8leading ~ 0.8lagging					

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Ratings &  
Principle  
Characteristics:

<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	100~550V					
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					

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Characteristics:

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	TL3 BH	TL3 BH	TL3 BH	TL3 BH	TL3 BH	TL3 BH
<b>Specifications</b>						
<b>Output data (/Input 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	50Hz;					
Max. output current	6.1A	7.6A	9.1A	10.6A	12.1A	15.2A
Power factor	0.8leading ~ 0.8lagging					
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Nominal AC frequency	50/60Hz					
Max. output current	6.1A	7.6A	9.1A	10.6A	12.1A	15.2A

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Ratings &  
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