

Certificate of Conformity

Certificate Number: CN-PV-210198

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 Growatt New Energy Co., Ltd 4-13/F, Building A, Sino-German(Europe) Industrial Park, Hangcheng Ave, Bao'an District, Shenzhen, China
Product Description:	Accumulation system
Ratings & Principle Characteristics:	See appendix of Certificate of Conformity
Models:	Inverter conversion device: Growatt SPH3000, SPH 3000TL BL-UP, Growatt SPH3600, SPH 3600TL BL-UP, Growatt SPH4000, SPH 4000TL BL-UP, Growatt SPH4600, SPH 4600TL BL-UP, Growatt SPH5000, SPH 5000TL BL-UP, Growatt SPH6000, SPH 6000TL BL-UP Batteries and BMS - Battery Management System 1 and 2 Battery model: US2000 / US2000 Plus and GBLI6531/GBLI6532 Control model: 2P15S and 2P16S Batteries and BMS - Battery Management System 3 Battery model: ARK 2.5L-A1/ ARK 2.5L-G1
Brand Name:	GROWATT
Tested according to:	CEI 0-21:2019-04: Reference technical rules for the connection of active and passive users to the LV electrical Utilities
Certificate Issuing Office Name & Address:	Intertek Testing Services Ltd. Shanghai West Area, 2nd Floor, No. 707, Zhangyang Road China (Shanghai) Pilot Free Trade Zone, Shanghai, P. R. China Accredited by China National Accreditation Service for Conformity Assessment (CNAS C058-P) in accordance with ISO/IEC 17065:2012
Test Report Number:	190612125GZU-001, Revision 2: 24 Aug 2021 and Revision 1: 14 Oct 2020

Certification procedure: SMS-PV-OP-19
Product certification scheme type: Type test
Additional information in Appendix

Signature



Certification Manager: Grady Ye

Date: 9 Sep. 2021



中国认可
产品
PRODUCT
CNAS C058-P

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-210198

Model/Type reference	Inverter conversion device: Growatt SPH3000, SPH 3000TL BL-UP, Growatt SPH3600, SPH 3600TL BL-UP, Growatt SPH4000, SPH 4000TL BL-UP, Growatt SPH4600, SPH 4600TL BL-UP, Growatt SPH5000, SPH 5000TL BL-UP, Growatt SPH6000, SPH 6000TL BL-UP Brand: GROWATT Batteries and BMS - Battery Management System 1 Battery model: US2000 / US2000 Plus Control model: 2P15S Brand: PYLONTECH Batteries and BMS - Battery Management System 2 Battery model: GBLI6531/GBLI6532 Control model: 2P16S Brand: GROWATT Batteries and BMS - Battery Management System 3 Battery model: ARK 2.5L-A1/ ARK 2.5L-G1 Control model: -- Brand: GROWATT
Inverter Firmware Version	RA1.0
Number of phases	Single-phase
Nominal Power	See below ratings
Type	Bidirectional
CUS (useful capacity of the storage system)	See following
Psn (nominal discharge power)	3000W
Pcn (nominal charge power)	3000W
Psmax (maximum discharge power) :	3000W
Pcmx (maximum charge power):	3000W
BMS Firmware Version for system 1 :	V2.0
BMS Firmware Version for system 2 :	R1.1 Growatt
BMS Firmware Version for system 3 :	QAAA-0002

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Battery		CUS (useful capacity of the storage system)	
Model	Manufacturer	Capacity of per battery module (kWh)	Number of Max modules recommended by the manufacturer
US2000 / US2000 Plus	Shanghai PYLONTECH	2.2	8
GBLI6531/GBLI6532	NVT	6.0	2
ARK 2.5L-A1/ ARK 2.5L-G1	Growatt	2.56	10

Note: batteries are not integrated within the inverter, and shall be installed according to local regulation.



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Model	Growatt SPH3000 SPH 3000TL BL-UP	Growatt SPH3600 SPH 3600TL BL-UP	Growatt SPH4000 SPH 4000TL BL-UP
PV Input data			
Max. PV Input Voltage	550V		
Max. PV current	2*13.5 d.c.A		
Max. PV Isc	2*16.9 d.c.A		
AC output/Input data			
Rated input / output power [W]	3000/3000	3000/3680(for Model Growatt SPH3600) 3680/3680(for model SPH 3600TL BL-UP)	3000/4000(for Model Growatt SPH4000) 4000/4000(for model SPH 3600TL BL-UP)
Rated Output apparent power	3000VA	3680VA	4000VA
Nominal voltage	230 a.c.V		
Max. input/output current	16/16 a.c.A		22/22 a.c.A
Nominal Frequency	50/60Hz		
Power Factor range	0.8 Leading ~ 0.8 Lagging		
EPS output data			
Max. output power	3000VA (for model Growatt SPH3000, Growatt SPH3600, Growatt SPH4000, SPH 3000TL BL-UP) 3680VA (for model SPH 3600TL BL-UP) 4000VA (for model SPH 4000TL BL-UP)		
Nominal AC output voltage	230 a.c.A		
Nominal AC Frequency	50Hz		
Battery data			
Battery voltage range	42 – 59 d.c.V		
Max. charging and discharging current	66 d.c.A(for Growatt SPH3000, Growatt SPH3600, Growatt SPH4000, SPH3000TL BL-UP) 75 d.c.A(only for SPH3600TL BL-UP) 85 d.c.A (only for SPH4000TL BL-UP)		
Type of battery	Lithium/Lead-acid		
Ingress Protection	IP65		
Protective Class	Class I		
Operating temperature range	-25°C - +60°C		
FW Version	RA1.0		

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Model	Growatt SPH4600 SPH 4600TL BL-UP	Growatt SPH5000 SPH 5000TL BL-UP	Growatt SPH6000 SPH 6000TL BL-UP
PV Input data			
Max. PV Input Voltage	550V		
Max. PV current	2*13.5 d.c.A		
Max. PV Isc	2*16.9 d.c.A		
AC output/Input data			
Rated input / output power [W]	3000/4600(for Model Growatt SPH4600) 4600/4600(for model SPH 4600TL BL-UP)	3000/5000(for Model Growatt SPH5000) 5000/5000(for model SPH 5000TL BL-UP)	3000/6000(for Model Growatt SPH6000) 6000/6000(for model SPH 6000TL BL-UP)
Rated Output apparent power	4600VA	5000VA	6000VA
Nominal voltage	230 a.c.V		
Max. input/output current	22/22 a.c.A		27/27 a.c.A
Nominal Frequency	50/60Hz		
Power Factor range	0.8 Leading ~ 0.8 Lagging		
EPS output data			
Max. output power	3000VA (for model Growatt SPH4600, Growatt SPH5000, Growatt SPH6000) 4000VA (for model SPH 4600TL BL-UP, SPH 5000TL BL-UP, SPH 6000TL BL-UP)		
Nominal AC output voltage	230 a.c.A		
Nominal AC Frequency	50Hz		
Battery data			
Battery voltage range	42 – 59 d.c.V		
Max. charging and discharging current	66 d.c.A(only for Growatt SPH4600, Growatt SPH5000, Growatt SPH6000) 85 d.c.A(only for SPH 4600TL BL-UP, SPH 5000TL BL-UP, SPH 6000TL BL-UP)		
Type of battery	Lithium/Lead-acid		
Ingress Protection	IP65		
Protective Class	Class I		
Operating temperature range	-25°C - +60°C		
FW Version	RA1.0		

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Verification of certificate with test report: 190612125GZU-001 and Revision 2: 24 Aug 2021

TYPE OF APPARATUS:

(the static converters in systems with capacity up to 11.08 kW)

DISCONNECTION DEVICE	INTERFACE PROTECTION DEVICE	DEVICE FOR CONVERSION	ROTATING GENERATOR DEVICE
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Manufacturer: Shenzhen Growatt New Energy Co., Ltd

Apparatus type: Accumulation system

Model: Inverter conversion device:

Growatt SPH3000, SPH 3000TL BL-UP, Growatt SPH3600, SPH 3600TL BL-UP, Growatt SPH4000, SPH 4000TL BL-UP, Growatt SPH4600, SPH 4600TL BL-UP, Growatt SPH5000, SPH 5000TL BL-UP, Growatt SPH6000, SPH 6000TL BL-UP

Brands: GROWATT

Batteries and BMS - Battery Management System 1

Battery model: US2000 / US2000 Plus

Control model: 2P15S

Brands: Pylontech

Batteries and BMS - Battery Management System 2

Battery model: GBLI6531/GBLI6532

Control model: 2P16S

Brands: GROWATT

Batteries and BMS - Battery Management System 3

Battery model: ARK 2.5L-A1/ ARK 2.5L-G1

Control model: --

Brands: GROWATT

Inverter Firmware Version: RA1.0

BMS Firmware Version for system 1: V2.0; BMS Firmware Version for system 2: R1.1 Growatt

BMS Firmware Version for system 3: QAAA-0002

Number of phases: Single-phase

Nominal power: See certificate for each model

Type: Bidirectional

CUS (useful capacity of the storage system): See certificate

Remark: The devices are capable to limit I_{dc} to 0.5% of the rated grid current

Verification of certificate with test report: 190612125GZU-001 and Revision 2: 24 Aug 2021

Having assessed the test report 190612125GZU-001 and Revision 2 Issued by laboratory:
Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
Room 02, & 101/E201/E301/E401/E501/E601/E701/E801 of Room 01 1-8/F., No. 7-2. Caipin Road, Science
City, GETDD, Guangzhou, Guangdong, China
In compliant with ISO/IEC 17025:2017
Accreditation number: CNAS L0220

Having examined the ISO 9001 certificate of the manufacturer No: UKQ1809003R2 issued by:
UNVERSAL CERTIFICATION CENTRE CO., LTD

The indicated products above are complied with CEI 0-21:2019-04: Reference technical rules for the
connection of active and passive users to the LV electrical Utilities



Signature

Name: Grady Ye

Date: 09 Sep. 2021