DICHIARAZIONE DI CONFORMITÁ alla norma CEI0-21: 2022-03

1. Tipologia di Apparecchiatura cui si riferisce la dichiarazione						
Costruttore ***Manufacturer***	**Shenzhen Growatt New Energy Co., LTD** 4-13/F,Building A,Sino-German(Europe) Industrial Park, Hangcheng Ave, Bao'an District, Shenzhen, China					
Tipo apparecchiatura ***Product Type***	Dispositivo di Interfaccia: SI; Protezione di Interfaccia: SI; Dispositivo di conversione statica: SI; Dispositivo di Generazione Rotante: NO					
Modello **Model**	Growatt SPH3000	Growatt SPH3600	Growatt SPH4000	Growatt SPH4600	Growatt SPH5000	Growatt SPH6000
Versione FW **Software release**	RA1.0 e Superiori					
Numero di Fasi	1 (Monofase)					
Potenza Nominale **Power Rating**	3000 W	3680 W	4000 W	4600 W	5000 W	6000 W
Psn (potenza di Scarica Nominale)	3000 W					
Pcn (potenza di Carica Nominale)	3000 W					
Psmax (potenza di Scarica Massima)	3000 W					
Pcmax (potenza di Carica Massima)	3000 W					
Tipologia	Bidirezionale					

Gli inverter suddetti possono essere installati con le seguenti batterie:
The inverters here above listed may be installed with the following batteries:

Costruttore ***Manufacturer***	POWERAMP	POWERAMP	Shanghai PYLONTECH	Growatt	Growatt
Modello batterie **Battery model**	GBLI6531	GBLI6532	US2000 / US2000 Plus	ARK 2.5L-A1/ ARK 2.5L-G1	AXE5.0L-C1
Tecnologia (Tecnology)	Elettrochimico				
Capacità Nominale del modulo batteria (kWh): **Nominal Capacity of each battery module (kWh):**	6,5	6,5	2,4	2,56	5
Numero(i) di modulo batteria raccomandato dal produttore **Number(s) of battery modules reccommended by the manufacturer**	1 - 2	1 - 4	1 - 8	1 - 10	1 - 10
CUS (Capacità utile del Sistema di accumulo) **CUS (Useful capacity of storage system)**	6 - 12 kWh	6 - 24 kWh	2,2 - 17,6 kWh	2,3 - 23 kWh	4,6 - 46 kWh
Versione Firmware del BMS **BMS Firmware Version**	R1.1 Growatt	R1.1 Growatt	V2.0	QAAA-0002	QAAB_0003
NOTA	- Il dispositivo è in grado di limitare la Idc allo 0,5% della corrente nominale				

2. Riferimenti dei laboratori che hanno eseguito le prove e dei relativi fascicoli di prova:	
Fascicoli di prova n. **Test report number**	220602080GZU-001, 220407037GZU-001 and 190612125GZU-001
(Issued by) Emessi da	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
Accreditamento **Accreditation**	IAS (TL-395)

3. Dichiarazione di conformità alle prescrizioni CEI0-21: 2022-03

Con la presente dichiarazione, resa ai sensi degli artt. 46 e 47 DPR 28 dicembre 2000, n. 445, consapevole delle responsabilità e delle sanzioni penali previste dall'art. 76 del citato DPR per false attestazioni e dichiarazioni mendaci, il sottoscritto Liangcai Wu residente in Bao'an, nel comune di Guangdong provincia di Shenzhen (Cina), in qualità di delegato del rappresentante legale della società **Shenzhen Growatt New Energy Co., LTD** con sede legale 4-13/F,Building A,Sino-German(Europe) Industrial Park, Hangcheng Ave, Bao'an District, Shenzhen, China, P.IVA 91440300570039265Y, iscritta al registro delle imprese della pretura di Shenzhen (Cina), con Numero di registrazione 05026016

DICHIARA

che gli inverter Ibridi di propria costruzione di cui al precedente punto 1, sono conformi alle prescrizioni della norma **CEI 0-21: 2022-03**

Si attesta inoltre che la produzione delle apparecchiature oggetto di questa dichiarazione avviene in regime di qualità secondo ISO 9001:2015 (UCS –Universal Certification Service Co., Ltd., certificato N° 02421Q32012223R0M del 12/08/2021)

Shenzhen Growatt New Energy Co., LTD (*)
Shenzhen， P.R. China , lì 03/07/2023

Firma del dichiarante.
Liangcai Wu & Vice President

requests all civil and military authorities of foreign countries to allow the bearer of this passport to pass freely and afford assistance in case of need.

中华人民共和国
护照
PASSPORT

PEOPLE'S REPUBLIC OF CHINA

类型/Type P
国家码/Country Code CHN
护照号码/Passport No. EB0175010

姓名/Name
吴良材
WU, LIANGCAI

性别/Sex 男/M
国籍/Nationality 中国/CHINESE
出生日期/Date of birth 25 JAN 1981
出生地点/Place of birth 福建/FUJIAN
签发日期/Date of issue 29 8月/AUG 2017
签发地点/Place of issue 广东/GUANGDONG
有效期至/Date of expiry 28 8月/AUG 2027
签发机关/Authority 公安部出入境管理局 MPS Exit & Entry Administration
持照人签名/Bearer's signature 吴良材

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EB0175010<CHN8101257M2708285M00CMBLMLCMEA966

Certificate of Conformity

Certificate Number: CN-PV-220109R1

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:	Accumulation system
Ratings & Principle Characteristics:	See appendix of Certificate of Conformity
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 Batteries and BMS: See appendix of Certificate of Conformity Battery module model: See appendix of Certificate of Conformity Control model: See appendix of Certificate of Conformity
Brand Name<s>:	GROWATT
Product Complies with:	CEI 0-21: 2022 Reference technical rules for 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 ACCREDIA in accordance with ISO/IEC 17065:2012
Test Report No.<s>:	220602080GZU-001, 220407037GZU-001 and 190612125GZU-001 Issued by Intertek Testing Services Shenzhen Ltd. Guangzhou Branch accredited by IAS (TL-395) in accordance with ISO/IEC 17025:2017

Replaces certificate CN-PV-220109 dated 25 May 2022
Additional information in Appendix.

Signature

Certification Manager: Grady Ye
Date: 10 February 2023

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-220109R1

Test item description ..... :	**Accumulation system**
Trade Mark.....:	GROWATT
Manufacturer .....:	Same as applicant
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 Batteries and BMS - Battery Management System 4 Battery base model: AXE5.0L-C1 Control model: -- Brand: GROWATT
Inverter Firmware Version .....:	RA1.0
Number of phases.....:	Single-phase
Nominal Power.....:	3000W (Growatt SPH3000, SPH 3000TL BL-UP) 3680W (Growatt SPH3600, SPH 3600TL BL-UP) 4000W (Growatt SPH4000, SPH 4000TL BL-UP) 4600W (Growatt SPH4600, SPH 4600TL BL-UP) 5000W (Growatt SPH5000, SPH 5000TL BL-UP) 6000W (Growatt SPH6000, SPH 6000TL BL-UP)
Type.....:	Bidirectional
CUS (useful capacity of the storage system) .....:	See appendix of pape 4
Psn (nominal discharge power) .....:	3000W (For SPH3000~6000 series), 4000W (For TL BL-UP series)
Pcn (nominal charge power) .....:	Same as Psn (nominal discharge power)
Psmax (maximum discharge power) .....:	3000W (For SPH3000~6000 series), 4000W (For TL BL-UP series)
Pcmax (maximum charge power) .....:	Same as Psmax (maximum discharge power)
BMS Firmware Version for system 1 .....:	V2.0
BMS Firmware Version for system 2 .....:	R1.1 Growatt

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BMS Firmware Version for system 3:	QAAA-0002
BMS Firmware Version for system 4:	QAAB_0003

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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	POWERAMP	6.0	2
GBLI6532		6.0	4
ARK 2.5L-A1/ ARK 2.5L-G1	GROWATT	2.3	10
AXE5.0L-C1	GROWATT	4.6	10

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

TYPE OF APPARATUS: Accumulation system			
Number of phases: Single-phase			
DISCONNECTION DEVICE	INTERFACE PROTECTION DEVICE	DEVICE FOR STATIC CONVERSION	ROTATING GENERATOR DEVICE
☒	☒	☒	
Static converters in systems with capacity up to 11.08 kW The devices are capable to limit I_{dc} to 0.5% of the rated grid current			

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-220109R1

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	50/60Hz		
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, SPH 3000TL BL-UP) 75 d.c.A(only for SPH 3600TL BL-UP) 85 d.c.A (only for SPH 4000TL BL-UP)		
Type of battery	Lithium/Lead-acid		
Ingress Protection	IP65		
Protective Class	Class I		
Operating temperature range	-25℃ - +60℃		
FW Version	RA1.0		

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-220109R1

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℃ - +60℃		
FW Version	RA1.0		

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