

## DICHIARAZIONE DI CONFORMITÀ alla norma CEI0-21:2019-04

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	<table><tr><td>Dispositivo di Interfaccia</td><td>Protezione di Interfaccia</td><td>Dispositivo di conversione statica</td><td>Dispositivo di Generazione Rotante</td></tr><tr><td>SI</td><td>SI</td><td>SI</td><td>NO</td></tr></table>						Dispositivo di Interfaccia	Protezione di Interfaccia	Dispositivo di conversione statica	Dispositivo di Generazione Rotante	SI	SI	SI	NO
	Dispositivo di Interfaccia	Protezione di Interfaccia	Dispositivo di conversione statica	Dispositivo di Generazione Rotante										
SI	SI	SI	NO											
Modello Model	Growatt SPH 4000 TL3 BH-UP	Growatt SPH 5000 TL3 BH-UP	Growatt SPH 6000 TL3 BH-UP	Growatt SPH 7000 TL3 BH-UP	Growatt SPH 8000 TL3 BH-UP	Growatt SPH 10000 TL3 BH-UP								
Versione FW Software release	YA1.0 e Superiori													
Numero di Fasi	3 (Trifase)													
Potenza Nominale Power Rating	4000 W	5000 W	6000 W	7000 W	8000 W	10000 W								
Psn (potenza di Scarica Nominale)	4000 W	5000 W	6000 W	7000 W	8000 W	10000 W								
Pcn (potenza di Carica Nominale)	4000 W	5000 W	6000 W	7000 W	8000 W	10000 W								
Psmax (potenza di Scarica Massima)	4000 W	5000 W	6000 W	7000 W	8000 W	10000 W								
Pcmx (potenza di Carica Massima)	4000 W	5000 W	6000 W	7000 W	8000 W	10000 W								
Tipologia (Type)	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	Growatt													
Modello batterie Battery model	ARK 2.5H-A1													
Tecnologia ( Technology)	Elettrochimica													
Capacità Nominale del modulo batteria (kWh): Nominal Capacity of each battery module (kWh):	2,56													
Numero(i) di modulo batteria raccomandato dal produttore Number(s) of battery modules recommended by the manufacturer	3-10													
CUS ( Capacità utile del Sistema di accumulo ) CUS ( Useful capacity of storage system)	6,912 kWh – 23,04 kWh													
Control Model	HVC 60050-A1													
Versione Firmware del BMS BMS Firmware Version	QBAA1.0													
NOTA	Il dispositivo è in grado di limitare la I <sub>dc</sub> allo 0,5% della corrente nominale													

**2. Riferimenti dei laboratori che hanno eseguito le prove e dei relativi fascicoli di prova:**

<b>Fascicoli di prova n.</b> Test report number	210625019GZU-001
<b>(Issued by ) Emessi da</b>	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
<b>Accreditamento</b> Accreditation	CNAS L0220

**3. Dichiarazione di conformità alle prescrizioni CEI0-21:2019-04**

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 in 2F and 3F, Building 4, Jiayu Company Industrial Park, Xibianling, Shangyu Village, Shiyan Street, Bao'an District, Shenzhen, China P.IVA 440300570039265, iscritta al registro delle imprese della pretura di Shenzhen (Cina), con Numero di registrazione 91440300570039265Y

DICHIARA

che gli inverter Ibridi di propria costruzione di cui al precedente punto 1, sono conformi alle prescrizioni della norma **CEI 0-21: 2019-04**

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 18 /08/2021

Firma del dichiarante.  
**Liangcai Wu & Vice President**

.....  




护照号码/Passport No

CHN

EB0175010

姓名/Name

吴良材  
WU, LIANGCAI

性别/Sex

国籍 / Nationality

出生日期/Date of birth

男/M

中國/CHINESE

25 JAN 1981

出生地点/Place of birth

签发日期 / Date of issue

福建/FUJIAN

29 8月/AUG 2017

签发地点/Place of issue

有效期至 / Date of expiration

广东/GUANGDONG

28 8月/AUG 2027

签发机关/Authority

持照人簽名/ Bearer's signature

公安部出入境管理局

MPS Exit & Entry Administration

吳良材

717396942X

POCHNWU<<LIANGCAI<<<<<<<<<<<<<<<<<<<<<<<<  
EB01750107CHN8101257M2708285M00CMBMLCM EA966

# Certificate of Conformity

Certificate Number: CN-PV-210174

On the basis of the tests undertaken, the samples of the below product have been found to comply with the requirements of the referenced specification/standard 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. This certificate is superseded the certificate: CN-PV-210155.

<b>Applicant Name &amp; Address:</b>	Shenzhen Growatt New Energy Co., Ltd 2F and 3F, Building 4, Jiayu Company Industrial Park, Xibianling, Shangyu Village, Shiyan Street, Bao'an District, Shenzhen, China
<b>Product Description:</b>	Accumulation system
<b>Ratings &amp; Principle Characteristics:</b>	See appendix for more parameter details.
<b>Models/Type References:</b>	Inverter conversion device: SPH 4000TL3 BH-UP, SPH 5000TL3 BH-UP, SPH 6000TL3 BH-UP, SPH 7000TL3 BH-UP, SPH 8000TL3 BH-UP, SPH 10000TL3 BH-UP SPA 4000TL3 BH-UP, SPA 5000TL3 BH-UP, SPA 6000TL3 BH-UP, SPA 7000TL3 BH-UP, SPA 8000TL3 BH-UP, SPA 10000TL3 BH-UP Batteries and BMS - Battery Management System Battery model: ARK 7.6H-A1, ARK 10.2H-A1, ARK 12.8H-A1, ARK 15.3H-A1, ARK 17.9H-A1, ARK 20.4H-A1, ARK 23.0H-A1, ARK 25.6H-A1 Battery pack: ARK 2.5H-A1 Control model: HVC 60050-A1
<b>Brand Name:</b>	GROWATT
<b>Tested according to:</b>	CEI 0-21:2019-04: Reference technical rules for the connection of active and passive users to the LV electrical Utilities
<b>Certificate Issuing Office Name &amp; Address:</b>	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 CNAS in accordance with ISO/IEC 17065:2012
<b>Test Report Number:</b>	210625019GZU-001
Certification procedure: SMS-PV-OP-19	
Product certification scheme type: Type test	
Additional information in Appendix	

  
Signature

**Certification Manager: Grady Ye**  
**Date: 15 July 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-210174

Model/Type reference .....	<p>Inverter conversion device:            SPH 4000TL3 BH-UP, SPH 5000TL3 BH-UP, SPH 6000TL3 BH-UP,            SPH 7000TL3 BH-UP, SPH 8000TL3 BH-UP, SPH 10000TL3 BH-UP            SPA 4000TL3 BH-UP, SPA 5000TL3 BH-UP, SPA 6000TL3 BH-UP,            SPA 7000TL3 BH-UP, SPA 8000TL3 BH-UP, SPA 10000TL3 BH-UP            Brands: GROWATT            Batteries and BMS - Battery Management System            Battery model:            ARK 7.6H-A1, ARK 10.2H-A1, ARK 12.8H-A1, ARK 15.3H-A1,            ARK 17.9H-A1, ARK 20.4H-A1, ARK 23.0H-A1, ARK 25.6H-A1            Battery pack: ARK 2.5H-A1            Control model: HVC 60050-A1            Brands: GROWATT</p>
Inverter Firmware Version .....	YA1.0 (SPH series), YA1.0(SPA series)
Number of phases .....	Three-phase
Nominal Power .....	4000W (SPH 4000TL3 BH-UP, SPA 4000TL3 BH-UP) 5000W (SPH 5000TL3 BH-UP, SPA 5000TL3 BH-UP) 6000W (SPH 6000TL3 BH-UP, SPA 6000TL3 BH-UP) 7000W (SPH 7000TL3 BH-UP, SPA 7000TL3 BH-UP) 8000W (SPH 8000TL3 BH-UP, SPA 8000TL3 BH-UP) 10000W (SPH 10000TL3 BH-UP, SPA 10000TL3 BH-UP)
Type .....	Bidirectional
CUS (useful capacity of the storage system) .....	6.912KWh ~ 23.04KWh
Psn (nominal discharge power) .....	Same as maximum power
Pcn (nominal charge power) .....	Same as maximum power
Psmx (maximum discharge power) :	Same as maximum power
Pcmx (maximum charge power) ....:	Same as maximum power
BMS Firmware Version .....	QBAA1.0
Battery Firmware Version .....	--

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Battery		CUS (useful capacity of the storage system)	
Model	Manufacturer	Capacity of per battery module (kWh)	Number of Battery pack
ARK 7.6H-A1	Shenzhen Growatt New Energy Co., Ltd.	6.912	3
ARK 10.2H-A1		9.216	4
ARK 12.8H-A1		11.52	5
ARK 15.3H-A1		13.82	6
ARK 17.9H-A1		16.13	7
ARK 20.4H-A1		18.43	8
ARK 23.0H-A1		20.74	9
ARK 25.6H-A1		23.04	10
Note:			
1. Batteries are not integrated within the inverter, and shall be installed according to local regulation.			
2. The ARK high voltage battery system is composed of a high voltage controller HVC 60050-A1 and 3 to 10 battery packs ARK 2.5H-A1 in series.			



## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-210174

Model	SPH 4000 TL3 BH-UP	SPH 5000 TL3 BH-UP	SPH 6000 TL3 BH-UP	SPH 7000 TL3 BH-UP	SPH 8000 TL3 BH-UP	SPH 10000 TL3 BH-UP
Input data (DC)						
Max. recommended PV power (for module STC)	6000W	7500W	9000W	10500W	12000W	15000W
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	120~1000V	120~1000V	120~1000V	120~1000V	120~1000V	120~1000V
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	13.5A/13.5A	13.5A/13.5A	13.5A/13.5A	13.5A/13.5A	13.5A/13.5A	13.5A/13.5A
Max. short-circuit current per MPP trackers	16.9A/16.9A	16.9A/16.9A	16.9A/16.9A	16.9A/16.9A	16.9A/16.9A	16.9A/16.9A
Output data/Input (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	50Hz;					
Max. output current	6.1A	7.6A	9.1A	10.6A	12.1A	15.2A
Power factor	0.8leading ~ 0.8lagging					
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	50Hz					
Max. output current	6.1A	7.6A	9.1A	10.6A	12.1A	15.2A
Battery data (DC)						
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	7.68~76.8kWh					
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					
Software Version	YA1.0					

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This is an Appendix to Certificate of Conformity Number: CN-PV-210174

Model	SPA 4000 TL3 BH-UP	SPA 5000 TL3 BH-UP	SPA 6000 TL3 BH-UP	SPA 7000 TL3 BH-UP	SPA 8000 TL3 BH-UP	SPA 10000 TL3 BH-UP
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	50Hz;					
Max. output current	6.1A	7.6A	9.1A	10.6A	12.1A	15.2A
Power factor	0.8leading ~ 0.8lagging					
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	50Hz					
Max. output current	6.1A	7.6A	9.1A	10.6A	12.1A	15.2A
Battery data（DC）						
Battery voltage range	100~550V					
Max. charging / discharging current	25A					
Type of battery	lithium battery / Lead-acid battery					
Capacity of battery	7.68~76.8kWh					
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					
Software Version	YA1.0					

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**Verification of certificate with test report: 210625019GZU-001**

**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:

SPH 4000TL3 BH-UP, SPH 5000TL3 BH-UP, SPH 6000TL3 BH-UP, SPH 7000TL3 BH-UP,  
SPH 8000TL3 BH-UP, SPH 10000TL3 BH-UP, SPA 4000TL3 BH-UP, SPA 5000TL3 BH-UP,  
SPA 6000TL3 BH-UP, SPA 7000TL3 BH-UP, SPA 8000TL3 BH-UP, SPA 10000TL3 BH-UP

Brands: GROWATT

Batteries and BMS - Battery Management System

Battery model: ARK 7.6H-A1, ARK 10.2H-A1, ARK 12.8H-A1, ARK 15.3H-A1, ARK 17.9H-A1, ARK 20.4H-A1,  
ARK 23.0H-A1, ARK 25.6H-A1

Battery pack: ARK 2.5H-A1

Control model: HVC 60050-A1

Brands: GROWATT

Inverter Firmware Version: YA1.0 (SPH series), YA1.0(SPA series)

BMS Firmware Version: QBAA1.0

Battery Firmware Version: --

Number of phases: Three-phase

Nominal power: See certificate for each model

Type: Bidirectional

CUS (useful capacity of the storage system): 6.912KWh ~ 23.04KWh

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

Having assessed the test report 201230069GZU-001 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:  
UNIVERSAL 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: 15 July 2021**