

DICHIARAZIONE DI CONFORMITÀ 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	<table border="1" style="width: 100%; text-align: center;"> <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 MIN 2500TL-XH	Growatt MIN 3000TL-XH	Growatt MIN 3600TL-XH	Growatt MIN 4200TL-XH	Growatt MIN 4600TL-XH	Growatt MIN 5000TL-XH	Growatt MIN 6000TL-XH								
Versione FW Software release	AL1.0 e Superiori														
Numero di Fasi	1 (Monofase)														
Tensione nominale Nominal Voltage	230V														
Potenza Nominale Power Rating	2500 W	3000 W	3600 W	4200 W	4600 W	5000 W	6000 W								
Psn (potenza di Scarica Nominale)	2500 W	3000 W	3600 W	4200 W	4600 W	5000 W	6000 W								
Pcn (potenza di Carica Nominale)	2500 W	3000 W	3600 W	4200 W	4600 W	5000 W	6000 W								
Psmax (potenza di Scarica Massima)	2500 W	3000 W	3600 W	4200 W	4600 W	5000 W	6000 W								
Pcmx (potenza di Carica Massima)	2500 W	3000 W	3600 W	4200 W	4600 W	5000 W	6000 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	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	2-7														
CUS (Capacità utile del Sistema di accumulo) CUS (Useful capacity of storage system)	4,608 – 16,128 kWh														
Control Mode	BDC 95045-A1														
Versione Firmware del BMS BMS Firmware Version	VC1.0														
NOTA	Il dispositivo è in grado di limitare la I _{dc} allo 0,5% della corrente nominale														

Shenzhen Growatt New Energy Co., LTD

 4-13/F, Building A, Sino-German (Europe) Industrial Park, Hangcheng Ave,
Bao'an District, Shenzhen, China

 Tel: +8675527472079
 Fax: +8675527491460
 www.ginverter.com

Gli inverter suddetti possono essere dotati di un sistema di Backup: The inverters here above listed may be equipped with a Backup system:	
Costruttore <i>Manufacturer</i>	GROWATT
Modello Backup <i>Backup model</i>	SYN 50-XH-10
Tensione Nominale AC <i>Nominal Grid Voltage</i>	230 Vac
Frequenza Nominale AC <i>Nominal Grid Frequency</i>	50 Hz
Tensione nominale Backup <i>Nominal Backup Voltage</i>	230 Vac, 50 Hz

1. Riferimenti dei laboratori che hanno eseguito le prove e dei relativi fascicoli di prova:	
Fascicoli di prova n. <i>Test report number</i>	230403058GZU-014
(Issued by) Emessi da	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
Accreditamento <i>Accreditation</i>	IAS TL-395

2. Dichiarazione di conformità alle prescrizioni CEI0-21:2022-03
<p>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</p> <p style="text-align: center;">DICHIARA</p> <p>che gli inverter Ibridi di propria costruzione di cui al precedente punto 1, sono conformi alle prescrizioni della norma CEI 0-21: 2022-03</p> <p>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° 02421Q32012223ROM del 12/08/2021)</p>

Shenzhen Growatt New Energy Co., LTD (*)
Shenzhen, P.R. China , lì 19/09/2023

Firma del dichiarante.
Liangcai Wu & Vice President

.....


Certificate of Conformity

Certificate Number: CN-PV-220055R1

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.

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:	Energy Storage system
Ratings & Principle Characteristics:	See appendix of Certificate of Conformity
Model:	Smarter AC interface model: SYN 50-XH-10, SYN 50-XH-11, SYN 50-XH-12, SYN 50-XH-13 Brands: GROWATT Inverter conversion device: MIN 2500TL-XH, MIN 3000TL-XH, MIN 3600TL-XH, MIN 4200TL-XH, MIN 4600TL-XH, MIN 5000TL-XH, MIN 6000TL-XH, MIN 2500TL-XA, MIN 3000TL-XA, MIN 3600TL-XA, MIN 4200TL-XA, MIN 4600TL-XA, MIN 5000TL-XA, MIN 6000TL-XA MIN 2500TL-XH2, MIN 3000TL-XH2, MIN 3600TL-XH2, MIN 4200TL-XH2, MIN 4600TL- XH2, MIN 5000TL-XH2, MIN 6000TL-XH2 Batteries and BMS - Battery Management System: Battery module model: See appendix of Certificate of Conformity
Brand Name:	GROWATT
Product Complies with:	CEI 0-21: 2022-03 + V1:2022-11: 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 ACCREDIA in accordance with ISO/IEC 17065:2012
Test Report Number:	230403058GZU-014, dated 08 Aug 2023 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-220055, dated 14 March 2022

Additional information in Appendix

Signature

Certification Manager: Grady Ye

Date: 11 August 2023



PRD N° 306B

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-220055R1

Test item description.....:	Energy Storage system
Trademark.....:	GROWATT
Manufacturer.....:	Same as applicant
Model/Type reference.....:	Smarter AC interface model: SYN 50-XH-10, SYN 50-XH-11, SYN 50-XH-12, SYN 50-XH-13 Brands: GROWATT Inverter conversion device: MIN 2500TL-XH, MIN 3000TL-XH, MIN 3600TL-XH, MIN 4200TL-XH, MIN 4600TL-XH, MIN 5000TL-XH, MIN 6000TL-XH, MIN 2500TL-XA, MIN 3000TL-XA, MIN 3600TL-XA, MIN 4200TL-XA, MIN 4600TL-XA, MIN 5000TL-XA, MIN 6000TL-XA MIN 2500TL-XH2, MIN 3000TL-XH2, MIN 3600TL-XH2, MIN 4200TL-XH2, MIN 4600TL-XH2, MIN 5000TL-XH2, MIN 6000TL-XH2 Brands: GROWATT Batteries and BMS - Battery Management System Battery module model: ARK 5.1XH-A1, ARK 7.6XH-A1, ARK 10.2XH-A1, ARK 12.8XH-A1, ARK 15.3XH-A1, ARK 17.9XH-A1 Battery pack: ARK 2.5H-A1 High voltage control model: BDC 95045-A1 Brands: GROWATT
Inverter Firmware Version.....:	AL1.0
Number of phases.....:	Single-phase
Nominal Power.....:	2500W (MIN 2500TL-XH/XA/XH2), 3000W (MIN 3000TL-XH/XA/XH2) 3600W (MIN 3600TL-XH/XA/XH2), 4200W (MIN 4200TL-XH/XA/XH2) 4600W (MIN 4600TL-XH/XA/XH2), 5000W (MIN 5000TL-XH/X1 /XH2), 6000W (MIN 6000TL-XH/XA/XH2)
Type.....:	Bidirectional
CUS (useful capacity of the storage system).....:	4.608kWh ~ 16.128kWh
Psn (nominal discharge power):	2500W (MIN 2500TL-XH/XA/XH2), 3000W (MIN 3000TL-XH/XA/XH2) 3600W (MIN 3600TL-XH/XA/XH2), 4200W (MIN 4200TL-XH/XA/XH2) 4600W (MIN 4600TL-XH/XA/XH2), 5000W (MIN 5000TL-XH/X1 /XH2), 6000W (MIN 6000TL-XH/XA/XH2)
Pcn (nominal charge power).....:	Same as above
Psmax (maximum discharge power).....:	Same as above
Pcmax (maximum charge power).....:	Same as above
BMS Firmware Version	VC1.0

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Battery		CUS (useful capacity of the storage system)	
Basic Model	Manufacturer	Capacity of per battery module (kWh)	Number of Battery pack
ARK 5.1XH-A1	Shenzhen Growatt New Energy Co., Ltd.	4.608	2
ARK 7.6XH-A1		6.912	3
ARK 10.2XH-A1		9.216	4
ARK 12.8XH-A1		11.52	5
ARK 15.3XH-A1		13.82	6
ARK 17.9XH-A1		16.128	7
<p>Note:</p> <ol style="list-style-type: none"> Batteries are not integrated within the inverter, and shall be installed according to local regulation. The ARK high voltage battery system is composed if a high voltage controller BDC 95045-A1 and 2 to 7 battery packs ARK 2.5H-A1 in series. 			

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Model	MIN 2500TL-XH MIN 2500TL-XA	MIN 3000TL-XH MIN 3000TL-XA	MIN 3600TL-XH MIN 3600TL-XA	MIN 4200TL-XH MIN 4200TL-XA
Max.PV voltage	500 d.c.V (excluding XA series)		550 d.c.V (excluding XA series)	
PV voltage range	70-500 d.c.V (excluding XA series)		70-550 d.c.V (excluding XA series)	
PV Isc	16.9 d.c.A*2 (excluding XA series)			
Max.input current	13.5 d.c.A*2 (excluding XA series)			
Max. DC voltage	550 d.c.V			
DC voltage range	360-550 d.c.V			
Max. DC current	17 d.c.A			
Type of battery	Lithium battery			
Capacity of battery	5.12kWh~35.84kWh			
Nominal input / output power	2500/2500W	3000/3000W	3600/3600W	4200/4200W
Max. apparent power	2500VA	3000VA	3600VA	4200VA
Nominal output voltage	230 a.c.V			
Nominal input/output current	11.3/11.3 a.c.A	13.6/13.6 a.c.A	16/16 a.c.A	19/19 a.c.A
Nominal Frequency	50Hz			
Power factor range	0.8Leading – 0.8 lagging			
Safety level	Class I			
Ingress Protection	IP 65			
Operation Ambient Temperature	-25°C - +60°C			
Software version	AL 1.0			

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Model	MIN 4600TL-XH MIN 4600TL-XA	MIN 5000TL-XH MIN 5000TL-XA	MIN 6000TL-XH MIN 6000TL-XA
Max.PV voltage	550 d.c.V (excluding XA series)		
PV voltage range	70-550 d.c.V (excluding XA series)		
PV Isc	16.9 d.c.A*2 (excluding XA series)		
Max.input current	13.5 d.c.A*2 (excluding XA series)		
Max. DC voltage	550 d.c.V		
DC voltage range	360-550 d.c.V		
Max. DC current	17 d.c.A		
Type of battery	Lithium battery		
Capacity of battery	5.12kWh~35.84kWh		
Nominal input/output power	4600/4600W	5000/5000W	5000/6000W
Max. apparent power	4600VA	5000VA	6000VA
Nominal voltage	230 a.c.V		
Nominal input/output current	20.9/20.9 a.c.A	22.7/22.7 a.c.A	22.7/27.2 a.c.A
Nominal Frequency	50Hz		
Power factor range	0.8Leading – 0.8 lagging		
Safety level	Class I		
Ingress Protection	IP 65		
Operation Ambient Temperature	-25°C - +60°C		
Software version	AL 1.0		

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Model	MIN 2500TL-XH2	MIN 3000TL-XH2	MIN 3600TL-XH2	MIN 4200TL-XH2
Max.PV voltage	500 d.c.V		550 d.c.V	
PV voltage range	40-500 d.c.V		40-550 d.c.V	
PV Isc	24 d.c.A*2			
Max.input current	16 d.c.A*2			
Max. DC voltage	500 d.c.V (only for MIN 2500TL-XH2, MIN 3000TL-XH2)		550 d.c.V (only for MIN 3600TL-XH2, MIN 4200TL-XH2)	
DC voltage range	360-500 d.c.V (only for MIN 2500TL-XH2, MIN 3000TL-XH2)		360-550 d.c.V (only for MIN 3600TL-XH2, MIN 4200TL-XH2)	
Max. DC current	17 d.c.A (only for MIN 2500TL-XH2, MIN 3000TL-XH2, MIN 3600TL-XH2, MIN 4200TL-XH2)			
Max.output power	2500W	3000W	3600W	4200W
Max.apparent power	2500VA	3000VA	3600VA	4200VA
Nominal output voltage	230 a.c.V			
Max.output current	11.3 a.c.A	13.6 a.c.A	16 a.c.A	19 a.c.A
Nominal output Frequency	50/60Hz			
Power factor range	0.8Leading – 0.8 lagging			
Safety level	Class I			
Ingress Protection	IP 66			
Operation Ambient Temperature	-30°C - +60°C			
Software version	AL 1.0			

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Model	MIN 4600TL-XH2	MIN 5000TL-XH2	MIN 6000TL-XH2
Max.PV voltage	550 d.c.V		
PV voltage range	40-550 d.c.V		
PV Isc	24 d.c.A*2		
Max.input current	16 d.c.A*2		
Max. DC voltage	550 d.c.V (only for MIN 4600TL-XH2, MIN 5000TL-XH2, MIN 6000TL-XH2)		
DC voltage range	360-550 d.c.V (only for MIN 4600TL-XH2, MIN 5000TL-XH2, MIN 6000TL-XH2)		
Max. DC current	17 d.c.A (only for MIN 4600TL-XH2, MIN 5000TL-XH2, MIN 6000TL-XH2)		
Max.output power	4600W	5000W	6000W
Max.apparent power	4600VA	5000VA	6000VA
Nominal output voltage	230 a.c.V		
Max.output current	20.9 a.c.A	22.7 a.c.A	27.2 a.c.A
Nominal output Frequency	50/60Hz		
Power factor range	0.8Leading – 0.8 lagging		
Safety level	Class I		
Ingress Protection	IP 66		
Operation Ambient Temperature	-30°C - +60°C		
Software version	AL 1.0		

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Smarter AC interface:

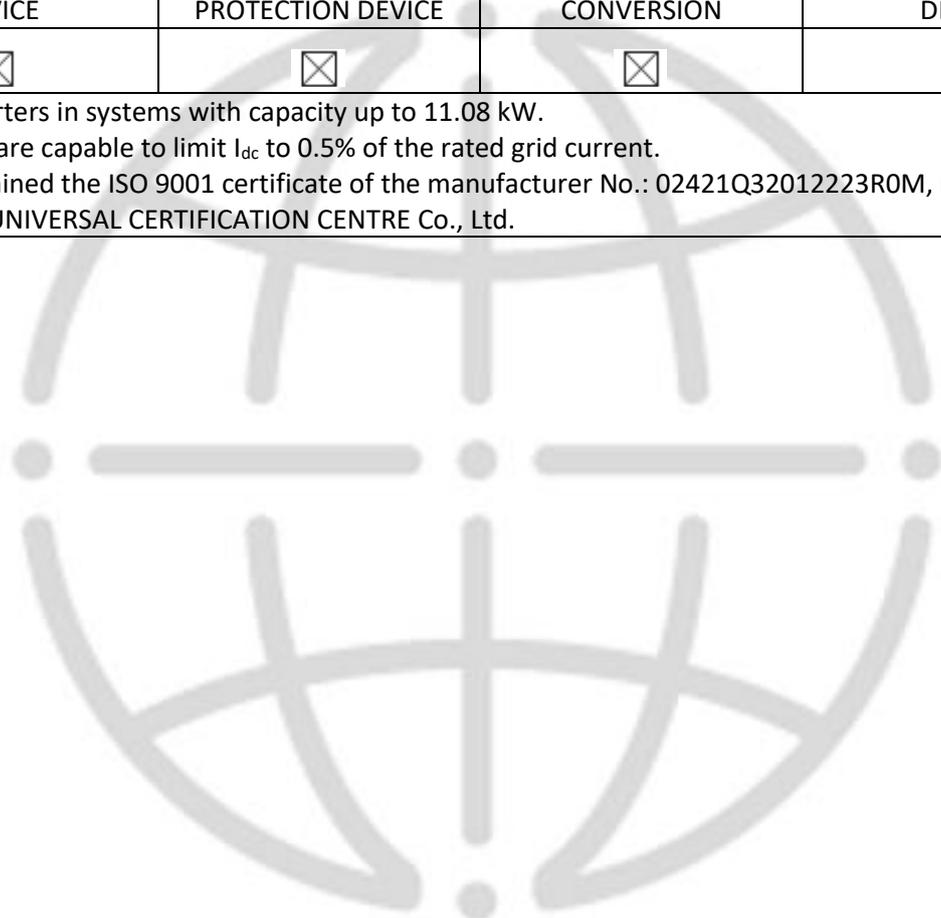
Model	SYN 50-XH-10	SYN 50-XH-11	SYN 50-XH-12	SYN 50-XH-13
Nominal grid voltage	230Vac			
Range of grid voltage	180-270Vac			
Max. grid current	63A			
Max. continuous grid current	50A			
Nominal grid frequency	50Hz			
Range of grid frequency	45-65Hz			
Max. continuous inverter input current	26.1A			
Nominal backup voltage	230Vac, 50Hz			
Max. backup output current	26.1A			
Nominal generator voltage	--	230Vac, 50Hz		
Range of generator voltage	--	180-270Vac		
Max. continuous generator input current	--	50A		
Ingress protection	IP65			
Operation ambient temperature	-25°C - +50°C			

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TYPE OF APPARATUS: Energy Storage system			
Number of phases: Single-phase			
DISCONNECTION DEVICE	INTERFACE PROTECTION DEVICE	DEVICE FOR CONVERSION	ROTATING GENERATOR DEVICE
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<p>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. Having examined the ISO 9001 certificate of the manufacturer No.: 02421Q32012223R0M, issued by: SHENZHEN UNIVERSAL CERTIFICATION CENTRE Co., Ltd.</p>			



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