

DICHIARAZIONE DI CONFORMITÀ ALLA NORMA CEI0-21

I seguenti generatori rispettano le prescrizioni della norma CEI 0-21: 2022-03 + V1: 2022-11								
Costruttore	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	Inverter solari ibridi per sistemi fotovoltaici; (v. RdP All. B) e (v. RdP All. Bbis)							
Marca	Growatt							
Numero fasi	Trifase Frequenza: 50 Hz Tensione: 400 Vac							
Modello del generatore	MOD 3000TL3- XH	MOD 4000TL3- XH	MOD 5000TL3- XH	MOD 6000TL3- XH	MOD 7000TL3- XH	MOD 8000TL3 - XH	MOD 9000TL3 - XH	MOD 10KTL3- XH
Potenza Nominale	3 kW	4 kW	5 kW	6 kW	7 kW	8 kW	9 kW	10 kW
Modello del generatore	MOD 3000TL3- XA	MOD 4000TL3- XA	MOD 5000TL3- XA	MOD 6000TL3 - XA	MOD 7000TL3- XA	MOD 8000TL3- XA	MOD 9000TL3- XA	MOD 10KTL3- XA
Potenza Nominale	3 kW	4 kW	5 kW	6 kW	7 kW	8 kW	9 kW	10 kW
Il generatore	È idoneo per installazione in impianti con potenza fino a 11,08 kW È idoneo per installazione in impianti con potenza superiore a 11,08 kW è in grado di limitare la I _{dc} allo 0,5% della corrente nominale Utilizza una funzione di protezione sensibile alla corrente continua							
Caratteristiche del sistema di protezione di interfaccia								
Costruttore	Shenzhen Growatt New Energy Co., Ltd							
Modello del generatore	MOD 3000TL3- XH / XA	MOD 4000TL3- XH / XA	MOD 5000TL3- XH / XA	MOD 6000TL3- XH / XA	MOD 7000TL3- XH / XA	MOD 8000TL3 - XH / XA	MOD 9000TL3 - XH / XA	MOD 10KTL3- XH / XA
Tipo	Integrata							
Caratteristiche del convertitore statico								
Modello del convertitore statico	MOD 3000TL3- XH	MOD 4000TL3- XH	MOD 5000TL3- XH	MOD 6000TL3- XH	MOD 7000TL3- XH	MOD 8000TL3 - XH	MOD 9000TL3 - XH	MOD 10KTL3- XH
Modello del convertitore statico	MOD 3000TL3- XA	MOD 4000TL3- XA	MOD 5000TL3- XA	MOD 6000TL3- XA	MOD 7000TL3- XA	MOD 8000TL3 - XA	MOD 9000TL3 - XA	MOD 10KTL3- XA
Costruttore del convertitore statico	Shenzhen Growatt New Energy Co., Ltd							

深圳古瑞瓦特新能源有限公司
Shenzhen Growatt New Energy Co., Ltd

Versione FW	DN 1.0 e superiori							
Potenza nominale del convertitore	3 kW	4 kW	5 kW	6 kW	7 kW	8 kW	9 kW	10 kW
Caratteristiche del sistema di accumulo (SdA)								
Modello	MOD 3000TL3-XH/XA	MOD 4000TL3-XH/XA	MOD 5000TL3-XH/XA	MOD 6000TL3-XH/XA	MOD 7000TL3-XH/XA	MOD 8000TL3-XH/XA	MOD 9000TL3-XH/XA	MOD 10KTL3-XH/XA
Psn (potenza di Scarica Nominale)	3 kW	4 kW	5 kW	6 kW	7 kW	8 kW	9 kW	10 kW
Pcn (potenza di Carica Nominale)	3 kW	4 kW	5 kW	6 kW	7 kW	8 kW	9 kW	10 kW
Psmax (potenza di Scarica Massima)	3 kW	4 kW	5 kW	6 kW	7 kW	8 kW	9 kW	10 kW
Pcmax (potenza di Carica Massima)	3 kW	4 kW	5 kW	6 kW	7 kW	8 kW	9 kW	10 kW
Note	La potenza di carica e scarica può essere limitata dalla potenza nominale dell'inverter							
Tipologia	Bidirezionale							
Batterie utilizzabili per i convertitori statici sopra riportati								
Marca	GROWATT							
Tecnologia	Litio Ferro Fosfato							
Modello sistema batteria	APX5.0P-S1	APX10.0P-S1	APX15.0P-S1	APX20.0P-S1	APX25.0P-S1	APX30.0P-S1		
Modello batterie	APX 5.0P-B1							
Modello BMS	APX 98020-P1							
CUS (kWh)	4,5	9	13,5	18	22,5	27		
Versione Firmware del BMS	V 1.0							
Numero moduli	1	2	3	4	5	6		
Modello sistema batteria	APX5.0P-S2	APX10.0P-S2	APX15.0P-S2	APX20.0P-S2	APX25.0P-S2	APX30.0P-S2		
Modello batterie	APX 5.0P-B1							
Modello BMS	APX 98034-P2							
CUS (kWh)	4,5	9	13,5	18	22,5	27		
Versione Firmware del BMS	V 1.0							
Numero moduli	1	2	3	4	5	6		
Note	Le batterie non sono integrate nell'inverter e devono essere installate secondo le normative locali; Il sistema di accumulo APX è formato da un BMS, APX98020-P1 o APX98034-P2, più i moduli batteria APX5.0P-B1, da 1 a 6 pezzi;							

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	Ogni gruppo batteria APX ha un BMS: APX98020-P1 per i sistemi con suffisso S1 e APX98034-P2 per i sistemi con suffisso S2;
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2. Riferimenti dei laboratori che hanno eseguito le prove e dei relativi fascicoli di prova:

Fascicoli di prova n.	231128200GZU-001
Emessi da	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
Accreditamento	ACCREDIA, PRD N° 306B

3. Dichiarazione di conformità alle prescrizioni CEI 0-21: 2022-03 + V1: 2022-11

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 Shenzhen (Cina), in qualità di CTO e vicepresidente della società **Shenzhen Growatt New Energy Co., Ltd.** con sede in 4-13/F, Building A, Sino-German (Europe) Industrial Park, Hangcheng Ave, Bao'an District, Shenzhen, China, Numero di registrazione 91440300570039265Y

DICHIARA

che gli inverter di propria costruzione di cui al precedente punto 1, sono conformi alle prescrizioni della norma **CEI 0-21: 2022-03 + V1: 2022-11**

Si attesta inoltre che la produzione delle apparecchiature oggetto di questa dichiarazione avviene in regime di qualità secondo ISO 9001:2015.

Shenzhen Growatt New Energy Co., Ltd.

Shenzhen, P.R. China , lì 02/01/2024

Firma del dichiarante
Liangcai Wu & Vice President



Certificate of Conformity

Certificate Number: CN-PV-220050R2

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-30, SYN 100-XH-30 Brands: GROWATT Inverter conversion device: MOD 3000TL3-XH/XA, MOD 4000TL3-XH/XA, MOD 5000TL3-XH/XA, MOD 6000TL3-XH/XA, MOD 7000TL3-XH/XA, MOD 8000TL3-XH/XA, MOD 9000TL3-XH/XA, MOD 10KTL3-XH/XA Brands: GROWATT Batteries and BMS - Battery Management System: Battery system: 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:	231128200GZU-001, 29 Nov 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-220050R1, dated 14 August 2023

Additional information in Appendix

Signature

Certification Manager: Grady Ye

Date: 07 December 2023



PRD N° 306B

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-220050R2

Test item description.....:	Energy Storage system
Trademark.....:	GROWATT
Manufacturer.....:	Same as applicant
Model/Type reference.....:	Smarter AC interface model: SYN 50-XH-30, SYN 100-XH-30 Brands: GROWATT Inverter conversion device: MOD 3000TL3-XH/XA, MOD 4000TL3-XH/XA, MOD 5000TL3-XH/XA, MOD 6000TL3-XH/XA, MOD 7000TL3-XH/XA, MOD 8000TL3-XH/XA, MOD 9000TL3-XH/XA, MOD 10KTL3-XH/XA Brands: GROWATT Batteries and BMS - Battery Management System 1 Battery system: ARK 7.6XH-A1, ARK 10.2XH-A1, ARK 12.8XH-A1, ARK 15.3XH-A1, ARK 17.9XH-A1, ARK 20.4XH-A1, ARK 23.0XH-A1, ARK 25.6XH-A1 Battery pack: ARK 2.5H-A1 High voltage control model: BDC 95045-A1 Brands: GROWATT Batteries and BMS - Battery Management System 2 Battery system: APX 5.0P-S2, APX10.0P-S2, APX 15.0P-S2, APX 20.0P- S2, APX 25.0P-S2, APX 30.0P-S2, APX 5.0P-S1, APX10.0P-S1, APX 15.0P-S1, APX 20.0P-S1, APX 25.0P-S1, APX 30.0P-S1 Battery pack: APX 5.0P-B1 High voltage control model: APX 98020-P1, APX 98034-P2 Brands: GROWATT
Inverter Firmware Version.....:	DN1.0
Number of phases.....:	Three-phase
Nominal Power.....:	3000W (MOD 3000TL3-XH/XA),4000W (MOD 4000TL3-XH/XA),5000W (MOD 5000TL3-XH/XA),6000W (MOD 6000TL3-XH/XA),7000W (MOD 7000TL3-XH/XA),8000W (MOD 8000TL3-XH/XA),9000W (MOD 9000TL3-XH/XA),10kW (MOD 10KTL3-XH/XA)
Type.....:	Bidirectional
CUS (useful capacity of the storage system).....:	6.912KWh ~ 23.04KWh for battery system 1; 4.5kWh ~ 27kWh battery system 2
Psn (nominal discharge power):	See below table for details
Pcn (nominal charge power).....:	See below table for details
Psmax (maximum discharge power).....:	See below table for details
Pcmx (maximum charge power).....:	See below table for details
BMS Firmware Version	VC1.0 for battery system 1; V1.0 for battery system 2

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Battery		CUS (useful capacity of the storage system)	
Battery system	Manufacturer	Capacity of battery system (kWh)	Number of battery pack recommended by the manufacturer
ARK 7.6XH-A1	Shenzhen Growatt New Energy Co., Ltd.	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		16.13	7
ARK 20.4XH-A1		18.43	8
ARK 23.0XH-A1		20.74	9
ARK 25.6XH-A1		23.04	10
<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 of a high voltage controller BDC 95045-A1 and 3 to 10 battery packs ARK 2.5H-A1 in series. 			

Battery		CUS (useful capacity of the storage system)		
Battery system	Manufacturer	Capacity of battery system (kWh)	Number of battery pack recommended by the manufacturer	
APX 5.0P-S2	Shenzhen Growatt New Energy Co., Ltd.	4.5	1	
APX 10.0P-S2		9.0	2	
APX 15.0P-S2		13.5	3	
APX 20.0P-S2		18.0	4	
APX 25.0P-S2		22.5	5	
APX 30.0P-S2		27.0	6	
APX 5.0P-S1		4.5	1	
APX 10.0P-S1		9.0	2	
APX 15.0P-S1		13.5	3	
APX 20.0P-S1		18.0	4	
APX 25.0P-S1		22.5	5	
APX 30.0P-S1		27.0	6	
<p>Note:</p> <ol style="list-style-type: none"> Batteries are not integrated within the inverter and shall be installed according to local regulation. APX high voltage battery system is composed of a high voltage controller APX 98020-P1 or APX 98034-P2 plus 1 to 6 battery packs APX 5.0P-B1 Every battery system have one controller. System with suffix S1 uses the controller APX98020-P1 and system with suffix S2 uses the controller APX98034-P2 				

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Battery system	ARK 5.1XH-A1	ARK 7.6XH-A1	ARK 10.2XH-A1	ARK 12.8XH-A1	ARK 15.3XH-A1
High Voltage Controller Model	BDC 95045-A1				
Battery module	ARK 2.5H-A1 (2.56kWh,51.2V)				
Number of Modules in Series	2	3	4	5	6
Psn*	2.5kW	3.75kw	5kw	6.25kw	7.5kw
Pcn*	2.5kW	3.75kw	5kw	6.25kw	7.5kw
Psmax*	2.5kW	3.75kw	5kw	6.25kw	7.5kw
Pcmx*	2.5kW	3.75kw	5kw	6.25kw	7.5kw
BMS Firmware Version	VC1.0				
Battery system	ARK 17.9XH-A1	ARK 20.4XH-A1	ARK 23.0XH-A1	ARK 25.6XH-A1	
High Voltage Controller Model	BDC 95045-A1				
Battery module	ARK 2.5H-A1 (2.56kWh,51.2V)				
Number of Modules in Series	7	8	9	10	
Psn*	8.75kW	10kW	11.25kW	12.5kW	
Pcn*	8.75kW	10kW	11.25kW	12.5kW	
Psmax*	8.75kw	10kW	11.25kw	12.5kw	
Pcmx*	8.75kW	10kW	11.25kW	12.5kW	
BMS Firmware Version	VC1.0				
* It could be limited by power of inverter, if the battery module used with inverter and has more power than inverter.					

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Battery system	APX 5.0P-S1	APX 10.0P-S1	APX 15.0P-S1	APX 20.0P-S1	APX 25.0P-S1	APX 30.0P-S1
High Voltage Controller Model	APX 98020-P1					
Battery module	APX 5.0P-B1					
Number of modules	1	2	3	4	5	6
Psn*	2.5KW	5KW	7.5KW	7.5KW	7.5KW	7.5KW
Pcn*	2.5KW	5KW	7.5KW	7.5KW	7.5KW	7.5KW
Psmax*	4KW,60s	8 KW,60s	12 KW,60s	12 KW,60s	12 KW,60s	12 KW,60s
Pcmx*	2.5KW	5KW	7.5KW	7.5KW	7.5KW	7.5KW
BMS Firmware Version	QAba Version WA1.0					
Battery system	APX 5.0P-S2	APX 10.0P-S2	APX 15.0P-S2	APX 20.0P-S2	APX 25.0P-S2	APX 30.0P-S2
High Voltage Controller Model	APX 98034-P2					
Battery module	APX 5.0P-B1					
Number of modules	1	2	3	4	5	6
Psn	2.5KW	5KW	7.5KW	10KW	12.5KW	15KW
Pcn	2.5KW	5KW	7.5KW	10KW	12.5KW	15KW
Psmax	4KW,60s	8 KW,60s	12 KW,60s	16 KW,60s	20 KW,60s	20 KW,60s
Pcmx	2.5KW	5KW	7.5KW	10KW	12.5KW	15KW
BMS Firmware Version	QAba Version WA1.0					
* It could be limited by power of inverter, if the battery module used with inverter and has more power than inverter.						

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Model	MOD 3000TL3-XH	MOD 4000TL3-XH	MOD 5000TL3-XH	MOD 6000TL3-XH
PV data				
Max. PV voltage	1100Vdc			
PV voltage range	140-1000Vdc			
PV Isc	20A*2			
Max. input current	16A*2			
DC data				
Max. DC voltage	1100Vdc			
DC voltage range	600-950Vdc			
Max. DC current	11A			
Max. input/out power	6000/3300 W	6000/4400 W	6000/5500 W	6000/6600 W
AC data				
Max. output power	3000 W	4000 W	5000 W	6000 W
Max. apparent power	3300 VA	4400 VA	5500 VA	6600 VA
Nominal output voltage	3W/N/PE 230/400Vac			
Max. output current	5.0A	6.7A	8.3A	10.0A
Nominal output frequency	50/60 Hz			
Power factor range	0.8Leading ~ 0.8Lagging			
Safety level	Class I			
Ingress protection	IP66			
Operation ambient temperature	-25°C - +60°C			
Software version	DN 1.0			

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Model	MOD 7000TL3-XH	MOD 8000TL3-XH	MOD 9000TL3-XH	MOD 10KTL3-XH
PV data				
Max. PV voltage	1100Vdc			
PV voltage range	140-1000Vdc			
PV Isc	20A*2			
Max. input current	16A*2			
DC data				
Max. DC voltage	1100Vdc			
DC voltage range	600-950Vdc			
Max. DC current	18.5A			
Max. input/out power	10/7.7 KW	10/8.8 KW	10/9.9 KW	10/11 KW
AC data				
Max. output power	7000 W	8000 W	9000 W	10000 W
Max. apparent power	7700 VA	8800 VA	9900 VA	11000 VA
Nominal output voltage	3W/N/PE 230/400Vac			
Max. output current	11.7A	13.3A	15.0A	16.7A
Nominal output frequency	50/60 Hz			
Power factor range	0.8Leading ~0.8Lagging			
Safety level	Class I			
Ingress protection	IP66			
Operation ambient temperature	-25°C - +60°C			
Software version	DN 1.0			

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Model	MOD 3000TL3-XA	MOD 4000TL3-XA	MOD 5000TL3-XA	MOD 6000TL3-XA
AC input/output data				
Nominal input/output power	3000W	4000W	5000W	6000W
Max. apparent power	3000VA	4000VA	5000VA	6000VA
Nominal output voltage	3W/N/PE 230/400Vac			
Max. output current	4.5A	6.1A	7.6A	9.1A
Nominal output frequency	50/60 Hz			
Power factor range	0.8Leading to 0.8Lagging			
Battery data				
Battery voltage range	600-950 d.c.V			
Max.operating current	11 d.c.A			
Type of battery	Lithium			
Others				
Safety level	Class I			
Ingress protection	IP66			
Operation ambient temperature	-25°C ~ +60°C			
Software Version	DN 1.0			

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Model	MOD 7000TL3-XA	MOD 8000TL3-XA	MOD 9000TL3-XA	MOD 10KTL3-XA
AC input/output data				
Nominal input/output power	7000W	8000W	9000W	10000W
Max. apparent power	7000VA	8000VA	9000VA	10000VA
Nominal output voltage	3W/N/PE 230/400Vac			
Max. output current	10.6A	12.1A	13.6A	15.2A
Nominal output frequency	50/60 Hz			
Power factor range	0.8Leading to 0.8Lagging			
Battery data				
Battery voltage range	600-950 d.c.V			
Max.operating current	18.5 d.c.A			
Type of battery	Lithium			
Others				
Safety level	Class I			
Ingress protection	IP66			
Operation ambient temperature	-25°C ~ +60°C			
Software Version	DN 1.0			

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Smarter AC interface:

Model	SYN 50-XH-30	SYN 100-XH-30
Nominal grid voltage	3W/N/PE, 230/400a.c.V	
Range of grid voltage	312-485Vac (L-L)	
Max. Grid current	63A	125A
Max. continuous grid current	50A	90A
Nominal grid frequency	50/60Hz	
Range of grid frequency	45-65Hz	
Nominal inverter voltage	3W/N/PE, 230/400Vac, 50/60Hz	
Max. continuous inverter input current	26.1A	58A
Nominal backup voltage	3W/N/PE, 230/400Vac, 50/60Hz	
Max. backup output current	26.1A	58A
Ingress protection	IP65	
Operation ambient temperature	-25°C - +50°C	

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-220050R2

TYPE OF APPARATUS: Energy Storage system			
Number of phases: three-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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