Certificate of Conformity

Certificate Number: CN-PVES-260432

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 Room 101, Building 1, Smart Green Energy Industrial Park, Buildings 1 to 7, No. 291 Yunchang Road, Sanwei Community, Hangcheng Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Product:	Hybrid Inverter
Ratings & Principle Characteristics:	See appendix of Certificate of Conformity
Model:	MINA XkTL-HU-Y (X, Y are variables. X=3, 3.6, 4.2,4.6, 5, 5.75, 6, 8, 10; Y=1, 2, 3, 4, 5, 6, 7) MINA XkTL-HU (X is variables. X=3, 3.6, 4.2,4.6, 5, 5.75, 6, 8, 10)
Brand Name<s>:	GROWATT
Product Complies with:	EN 50549-1:2019+A1:2023 EN 50549-10:2022
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>:	260618052GZC-001, 20 Oct, 2026

Mira Xiao

Signature

Certification Manager: Mira Xiao
Date: 23 October 2026

01886

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-PVES-260432.

Model	MINA 3kTL-HU-Y, MINA 3kTL-HU	MINA 3.6kTL-HU-Y, MINA 3.6kTL-HU	MINA 4.2kTL-HU-Y, MINA 4.2kTL-HU	MINA 4.6kTL-HU-Y, MINA 4.6kTL-HU
PV input				
VMAX PV [Vdc]	600			
ISC PV [A]	25/25/25 For Inverter: 26/26/26			
MPP Voltage Range VMPP [Vdc]	40-550			
Full load MPP Voltage Range VMPP [Vdc]	55-500	65-500	75-500	85-500
Max. Input Current IMAX [A]	20/20/20			
Number of MPPT trackers	3			
Overvoltage Category (OVC)	II			
AC input				
Rated Input Voltage [Vac]	230			
Rated Input Frequency Fn [Hz]	50/60			
Max. Input Current Imax [A]	13	15.7	18.3	20
Battery				
Rated input voltage [V]	400			
Input voltage range [V]	350-550			
Max. charge/discharge current [A]	30/9	30/10.8	30/12.6	30/13.8
Battery Type	Li-ion or Lead-acid			
AC output				
Rated Output Voltage [Vac]	230			
Rated Output Frequency Fn [Hz]	50/60			
Rated Active Power Pn [W]	3000	3600	4200	4600
Max. Active Power PEmax [W]	3000	3600	4200	4600
Rated Apparent power Sn [VA]	3000	3600	4200	4600
Max. Apparent power SEmax [VA]	3000	3600	4200	4600
Max. Output Current Imax [A]	13	15.7	18.3	20
Power Factor Range cosϕ [λ]	0.80un...0.80ov			

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-PVES-260432.

Overvoltage Category (OVC)	III
System	
Hardware version	V1.0
Software version	AN1.0
Type of inverter	Non-isolated
Type of NS Protection	Integrated
Noise emission (dB)	≤35
Protective Class	Class I
Enclosure Protection (IP)	IP66
Operating Temperature Range [ºC]	-20 to +55 (derating >45) For Inverter: -30 to +60 (derating >45)
Pollution degree (PD)	PD3(External), PD2(Internal)
Altitude [m]	4000
Size [mm] Width* Height*Depth	For 5kwh Pack Use: Inverter: 590*345*255 Battery module: 590*265*255 For 7kwh Pack Use: Inverter: 740*345*255 Battery module: 740*265*255
Weight [kg]	For 7kwh Pack Use: Inverter: 28.5 Battery module: 56.8 For 5kwh Pack Use: Inverter: 27.2 Battery module: 45
Note: Y are variables, Y=1, 2, 3, 4, 5, 6, 7.	

Model	MINA 5kTL-HU-Y, MINA 5kTL-HU	MINA 5.75kTL-HU-Y, MINA 5.75kTL-HU	MINA 6kTL-HU-Y, MINA 6kTL-HU	MINA 8kTL-HU-Y, MINA 8kTL-HU	MINA 10kTL-HU-Y, MINA 10kTL-HU
PV input					
VMAX PV [Vdc]	600				
ISC PV [A]	25/25/25 For Inverter: 26/26/26				
MPP Voltage Range VMPP [Vdc]	40-550				
Full load MPP Voltage Range VMPP [Vdc]	90-500	105-500	110-500	145-500	180-500
Max. Input Current IMAX [A]	20/20/20				
Number of MPPT trackers	3				
Overvoltage Category (OVC)	II				
AC input					
Rated Input Voltage [Vac]	230				
Rated Input Frequency Fn [Hz]	50/60				
Max. Input Current Imax [A]	21.7	25	26	34.8	43.5

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-PVES-260432.

Battery					
Rated input voltage [V]	400				
Input voltage range [V]	350-550				
Max. charge/discharge current [A]	30/15	30/17.5	30/18	30/24	30/30
Battery Type	Li-ion or Lead-acid				
AC output					
Rated Output Voltage [Vac]	230				
Rated Output Frequency Fn [Hz]	50/60				
Rated Active Power Pn [W]	5000	5750	6000	8000	9990
Max. Active Power PEmax [W]	5000	5750	6000	8000	9990
Rated Apparent power Sn [VA]	5000	5750	6000	8000	9990
Max. Apparent power SEmax [VA]	5000	5750	6000	8000	9990
Max. Output Current Imax [A]	21.7	25	26.0	34.8	43.5
Power Factor Range cosϕ [λ]	0.80un...0.80ov				
Overvoltage Category (OVC)	III				
System					
Hardware version	V1.0				
Software version	AN1.0				
Type of inverter	Non-isolated				
Type of NS Protection	Integrated				
Noise emission (dB)	≤35				
Protective Class	Class I				
Enclosure Protection (IP)	IP66				
Operating Temperature Range [ºC]	-20 to +55 (derating >45) For Inverter: -30 to +60 (derating >45)				
Pollution degree (PD)	PD3(External), PD2(Internal)				
Altitude [m]	4000				
Size [mm] Width* Height*Depth	For 5kwh Pack Use: Inverter: 590*345*255 Battery module: 590*265*255 For 7kwh Pack Use: Inverter: 740*345*255 Battery module: 740*265*255				
Weight [kg]	For 7kwh Pack Use: Inverter: 28.5 Battery module: 56.8 For 5kwh Pack Use: Inverter: 27.2 Battery module: 45				
Note: Y are variables, Y=1, 2, 3, 4, 5, 6, 7.					

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-PVES-260432.

Model	MINA XkTL-HU-1	MINA XkTL-HU-2	MINA XkTL-HU-3	MINA XkTL-HU-4	MINA XkTL-HU-5	MINA XkTL-HU-6	MINA XkTL-HU-7
For 7kwh pack							
Rated Capacity [Ah]	314	628	942	1256	1570	1884	2198
Rated Energy [kWh]	7	14	21	28	35	42	49
Usable Energy [kWh]	7	14	21	28	35	42	49
Number of BAT module	1	2	3	4	5	6	7
For 5kwh pack							
Rated Capacity [Ah]	314	628	942	1256	1570	1884	--
Rated Energy [kWh]	5	10	15	20	25	30	--
Usable Energy [kWh]	5	10	15	20	25	30	--
Number of BAT module	1	2	3	4	5	6	--
Battery cell block Manufacturer/ Model	WUHU ETC BATTERY LIMITED/RBA4F1						
Operating Temperature Range	-20~55						
Note: X are variables, a=3, 3.6, 4.2,4.6, 5, 5.75, 6, 8, 10							

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-PVES-260432.

Interface protection settings according to EN 50549-1:2019+A1:2023			
Parameter	Max. disconnection time	Min. operate time	Trip value
Undervoltage threshold stage 1 [27 <]	100s	0.1s (0.1 s steps)	Trip value Config. from 0.4 to 1 Un (0.01 Un steps)
Undervoltage threshold stage 2 [27 <<]	5s	0.1s (0.05 s steps)	Trip value Config. from 0.4 to 1 Un (0.01 Un steps)
Overvoltage threshold stage 1 [59 >]	100s	0.1s (0.1 s steps)	Trip value Config. from 1.0 to 1.2 Un (0.01 Un steps)
Overvoltage threshold stage 2 [59>>]	5s	0.1s (0.05 s steps)	Trip value Config. from 1.0 to 1.26 Un (0.01 Un steps)
Overvoltage 10 min mean protection	Trip time Config≤ 3s not adjustable Time delay setting = 0 ms		Trip value Config. from 1.0 to 1.15Un (0.01 Un steps)
Underfrequency threshold stage 1 [81 <]	100s	0.1s (0.1s steps)	Trip value Config. from 47.0 to 50.0Hz (0.1Hz steps)
Underfrequency threshold stage 2 [81 <<]	5s	0.1s (0.05 s steps)	Trip value Config. from 47.0 to 50.0Hz (0.1Hz steps)
Overfrequency threshold stage 1 [81 >]	100s	0.1s (0.1s steps)	Trip value Config. from 50.0 to 52.0Hz (0.1Hz steps)
Overfrequency threshold stage 2 [81 >>]	5s	0.1s (0.05 s steps)	Trip value Config. from 50.0 to 52.0Hz (0.1Hz steps)
Starting to and reconnection settings for voltage		50%-120% adjustable, 85%Un≤ U≤1.10Un default	
Starting to generate electrical power		47Hz – 52Hz adjustable, 49.5Hz≤ U≤50.1Hz default	
Reconnection settings for frequency		47Hz – 52Hz adjustable, 49.5Hz≤ U≤50.2Hz default	
Observation time		10s-60s adjustable, 60s default	
Active power increase gradient		6%-3000%/min adjustable, 10%/min default	
Permanent DC injection		0.5% of rated inverter output	
Loss of mains according to EN 62116		Within 2s	

According to Annex H of the standard EN 50549-1:2019+A1:2023, generating plants compliant with the clauses of this European Standard are considered to be compliant with the relevant Article of COMMISSION REGULATION (EU) 2016/631, provided that all settings as provided by the DSO and the responsible party are complied with.

Type approval for type A

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.