Certificate of Conformity

Certificate Number: CN-PV-230225

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: **Ratings & Principle Characteristics:**	Hybrid Inverter See appendix of Certificate of Conformity
Model:	MID 11KTL3-XH, MID 12KTL3-XH, MID 13KTL3-XH, MID 15KTL3-XH, MID 17KTL3-XH, MID 20KTL3-XH, MID 25KTL3-XH, MID 30KTL3-XH MID 11KTL3-XA, MID 12KTL3-XA, MID 13KTL3-XA, MID 15KTL3-XA MID 17KTL3-XA, MID 20KTL3-XA, MID 25KTL3-XA, MID 30KTL3-XA MID 8KTL3-XH L, MID 10KTL3-XH L, MID 12KTL3-XH L, MID 15KTL3-XH L
Brand Name<s>:	GROWATT
Product Complies with:	EN 50549-1: 2019, Requirements for generating plants to be connected in parallel with distribution networks Part 1: Connection to a LV distribution network - Generating plants up to and including type B Type approval for type B
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>:	230315054GZU-001

According to Annex H of the standard EN 50549-1:2019, 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. Additional information in Appendix.

Signature

Certification Manager: Grady Ye
Date: 12 May 2023

PRD N° 306B

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-230225.

Model	MID 11KTL3-XH/XA	MID 12KTL3-XH/XA	MID 13KTL3-XH/XA	MID 15KTL3-XH/XA	MID 17KTL3-XH/XA	MID 20KTL3-XH/XA	MID 25KTL3-XH/XA	MID 30KTL3-XH/XA
PV data (NA for MID 11-30KTL3-XA series)								
Max. DC voltage	1100Vdc							
MPP voltage range	160-1000Vdc							
Full Load MPP voltage range	335V-825Vdc							
No. of MPP trackers	2/2						2/2/2	
Max. input current per MPP trackers [A]	32A/32A						32A/32A/32A	
Max. short-circuit current per MPP trackers [A]	40A/40A						40A/40A/40A	
DC data								
Max. DC Voltage	1100Vdc							
DC voltage range	600-980Vdc							
Max. DC current	25A*2							
Max.input/output power	30kW/ 11kW	30kW/ 12kW	30kW/ 13kW	30kW/ 15kW	30kW/ 17kW	30kW/ 20kW	30kW/ 25kW	30kW/ 30kW
AC rated power [kW]	11	12	13	15	17	20	25	30
Max. AC apparent power [kVA] for "-XH" series	12.1	13.2	14.3	16.5	18.7	22.0	27.5	30.0
Max. AC apparent power [kVA] for "-XA" series	11	12	13	15	17	20	25	30
Rated AC voltage	3W/N/PE, 230V/400V							
AC grid frequency	50Hz							
Max. output current [A] for "-XH" series	18.3	20.0	21.7	25.0	28.3	33.3	41.6	45.5
Max. output current [A] for "-XA" series	16.7	18.2	19.7	22.7	25.8	30.3	37.9	45.5
Adjustable power factor	0.8Leading ...0.8Lagging							
Operating temperature range	–25°C ... +60°C (>45°C Derating)							
Protection degree	IP66							
Software Version	DN1.0							

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-230225.

Model	MID 8KTL3-XH L	MID 10KTL3-XH L	MID 12KTL3-XH L	MID 15KTL3-XH L
PV data				
Max. DC voltage	1100Vdc			
MPP voltage range	160-850Vdc			
Full Load MPP voltage range	200V-650Vdc			
No. of MPP trackers	3			
Max. input current per MPP trackers [A]	32A/32A/32A			
Max. short-circuit current per MPP trackers [A]	40A/40A/40A			
DC data				
Max. DC Voltage	1100Vdc			
DC voltage range	560-980Vdc			
Max. DC current	26.8A*2			
Max.input/output power	24kW/ 8kW	30kW/ 10kW	30kW/ 12kW	30kW/ 15kW
AC rated power [kW]	8	10	12	15
Max. AC apparent power [kVA]	8	10	12	15
Rated AC voltage	3W/PE, 127V/220V; 133V/230V			
AC grid frequency	50Hz			
Max. output current [A]	21.0	26.3	31.5	39.4
Adjustable power factor	0.8Leading ...0.8Lagging			
Operating temperature range	–25°C ... +60°C (>45°C Derating)			
Protection degree	IP66			
Software Version	DN1.0			

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Interface protection settings according to EN 50549-1:2019			
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 0.2 to 1 Un (0.01 Un steps)
Undervoltage threshold stage 2 [27 <<]	5s	0.1s (0.05 s steps)	Trip value Config. from 0.2 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 1.3 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 t0 EN 62116		Within 2s	

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