

Certificate of Conformity

NO.: ENS2301280049E00301C

The following product has been tested by us with the listed standards and found in conformity with the council EMC directive 2014/30/EU. This is to certify that the specimen is in conformity with the assessment requirement mentioned follow. This certificate does not imply assessment to the production of the product.

Applicant : Shenzhen Growatt New Energy Co., Ltd.

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

Manufacturer : Shenzhen Growatt New Energy Co., Ltd.

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

Trade Mark : GROWATT

EUT : Grid-connected inverter

M/N : MID 6KTL3-XL2, MID 8KTL3-XL2, MID 10KTL3-XL2, MID 11KTL3-XL2, MID 12KTL3-XL2, MID 15KTL3-XL2, MID 17KTL3-XL2, MID 20KTL3-XL2, MID 22KTL3-XL2, MID 25KTL3-XL2, MID 17KTL3-X2, MID 20KTL3-X2, MID 22KTL3-X2, MID 25KTL3-X2, MID 30KTL3-X2, MID 30KTL3-X2-1, MID 33KTL3-X2, MID 36KTL3-X2, MID 40KTL3-X2, MID 50KTL3-X2

Test Standards : EN 62920:2017/A1:2021
EN 61000-3-12:2011
EN IEC 61000-3-11: 2019

Version : Ver.1.0



(Manager)

February 23, 2023

The certificate is based on a single evaluation of one sample of above-mentioned products, It does not imply an assessment of the whole production and does not permit the use of the test lab. logo .



Certificate of Conformity

Certificate Number: CN-PV-230076

On the basis of the tests undertaken, the samples of the below product have been found to comply with the requirements of the referenced specifications /standards 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 Name & Address:	Shenzhen Growatt New Energy Co., Ltd. 4-13/F, Building A, Sino-German (Europe) Industrial Park, Hangcheng Ave, Bao'an District, Shenzhen, China
Product Description:	PV Grid inverter
Ratings & Principle Characteristics:	See Annex to Certificate of Conformity
Models/Type References:	MID 6KTL3-XL2, MID 8KTL3-XL2, MID 10KTL3-XL2, MID 11KTL3-XL2, MID 12KTL3-XL2, MID 15KTL3-XL2, MID 17KTL3-XL2, MID 20KTL3-XL2, MID 22KTL3-XL2, MID 25KTL3-XL2, MID 17KTL3-X2, MID 20KTL3-X2, MID 25KTL3-X2, MID 30KTL3-X2, MID 30KTL3-X2-1, MID 33KTL3-X2, MID 36KTL3-X2, MID 40KTL3-X2, MID 50KTL3-X2
Brand Name:	GROWATT
Specification/Standard:	IEC/EN 62109-1:2010 (First Edition) Safety of Power Converter for use in Photovoltaic Power Systems Part 1: General requirements IEC/EN 62109-2:2011 Safety of Power Converter for use in Photovoltaic Power Systems Part 2: Particular requirements for inverters
Certificate Issuing Office Name & Address:	Intertek Testing Services Ltd. Shanghai West Area, 2 nd Floor, No. 707, Zhangyang Road China (Shanghai) Pilot Free Trade Zone, Shanghai, P. R. China
Test Report Number:	Accredited by ACCREDIA in accordance with ISO/IEC 17065:2012 220908133GZU-001, 220908133GZU-002

Additional information in Appendix.



Signature

Certification Manager: Grady Ye

Date: 06 March 2023



PRD N° 306B

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-230076

Model	MID 6KTL3- XL2	MID 8KTL3- XL2	MID 10KTL3- XL2	MID 11KTL3- XL2	MID 12KTL3- XL2	MID 15KTL3- XL2	MID 17KTL3- XL2	MID 20KTL3- XL2	MID 22KTL3- XL2	MID 25KTL3- XL2
Max. DC voltage	1100V									
MPP voltage range	200-850V									
Full-load voltage range	200-650V									
No. of MPP trackers	2					4				
No. of PV strings per MPP trackers	2/2					2/2/2/2				
Max. input current per MPP trackers	32/36					32/32/32/32				
Max. short-circuit current per MPP trackers	40/45					40/40/40/40				
AC rated power	6000W	8000W	10000W	11000W	12000W	15000W	17000W	20000W	22000W	25000W
Max. AC apparent power	6600V A	8800V A	<u>11100V</u> A	<u>12200V</u> A	<u>13300V</u> A	<u>16600V</u> A	18800V A	<u>22200V</u> A	24400V A	27700V A
Nominal AC voltage	3W+PE, 3W/N/PE,127V/220V; 133V/230V									
AC grid frequency	50/60 Hz									
Rated AC output current@127 V	15.7A	21.0A	26.2A	28.9A	31.5A	39.4A	44.6A	52.5A	57.7A	65.6A
Rated AC output current@133 V	15.0A	20.1A	25.1A	27.6A	30.1A	37.6A	42.6A	50.1A	55.1A	62.7A
Max. output current	17.5A	23.3A	29.2A	32.1A	35.0A	43.7A	49.6A	58.3A	64.2A	72.9A
Adjustable power factor	0.8Leading ...0.8Lagging									
Operating temperature range	-25°C ... +60°C (>45°C Derating)									
Protection degree	IP66									
Software Version	DM1.0									

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-230076

Model	MID 17KTL3- X2	MID 20KTL3- X2	MID 25KTL3- X2	MID 30KTL3- X2	MID 30KTL3- X2-1	MID 33KTL3- X2	MID 36KTL3- X2	MID 40KTL3- X2	MID 50KTL3- X2
Max. DC voltage	1100Vdc								
MPP voltage range	200-1000Vdc								
Full Load MPP voltage range	420-850Vdc		480-850Vdc		400-850Vdc			450-850Vdc	
No. of MPP trackers	2				3			4	
No. of PV strings per MPP trackers	2/2			2/3	2/2/2			2/2/2/2	
Max. input current per MPP trackers [A]	32/32		32/36	32/48	32/32/32			32/32/32/32	
Max. short-circuit current per MPP trackers [A]	40/40		40/45	40/60	40/40/40			40/40/40/40	
AC rated power [KW]	17	20	25	30	30	33	36	40	50
Max. AC apparent power [KVA]	18.8	22.2	27.7	33.3	30.0	36.6	40.0	44.4	55.5
Rated AC voltage	3W/N/PE, 230V/400V								
AC grid frequency	50/60Hz								
Rated AC output current [A]	24.6	29.0	36.2	43.5	43.5	47.8	52.2	58.0	72.5
Max. output current [A]	28.6	33.6	42.0	50.5	45.5	55.5	60.6	67.3	84.1
Adjustable power factor	0.8Leading ...0.8Lagging								
Operating temperature range	-25°C ... +60°C (>45°C Derating)								
Protection degree	IP66								
Software Version	DM1.0								

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Certificate of Conformity

Certificate Number: CN-PV-230161

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:	PV Grid Inverter
Ratings & Principle Characteristics:	See appendix of Certificate of Conformity
Model:	MID 17KTL3-X2, MID 20KTL3-X2, MID 25KTL3-X2, MID 30KTL3-X2, MID 30KTL3-X2-1, MID 33KTL3-X2, MID 36KTL3-X2, MID 40KTL3-X2, MID 50KTL3-X2
Brand Name<s>:	GROWATT
Product Complies with:	CEI 0-16:2022-03 + V1:2022-11: Reference technical rules for the connection of active and passive consumers to the HV and MV electrical networks of distribution Company
Certificate Issuing Office Name & Address:	Intertek Testing Services Ltd. Shanghai West Area, 2 nd 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>:	221226019GZU-002 Issued by Intertek Testing Services Shenzhen Ltd. Guangzhou Branch accredited by IAS (TL-395) in accordance with ISO/IEC 17025:2017

Additional information in Appendix.



Signature

Certification Manager: Grady Ye

Date: 10 April 2023



PRD N° 306B

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-230161.

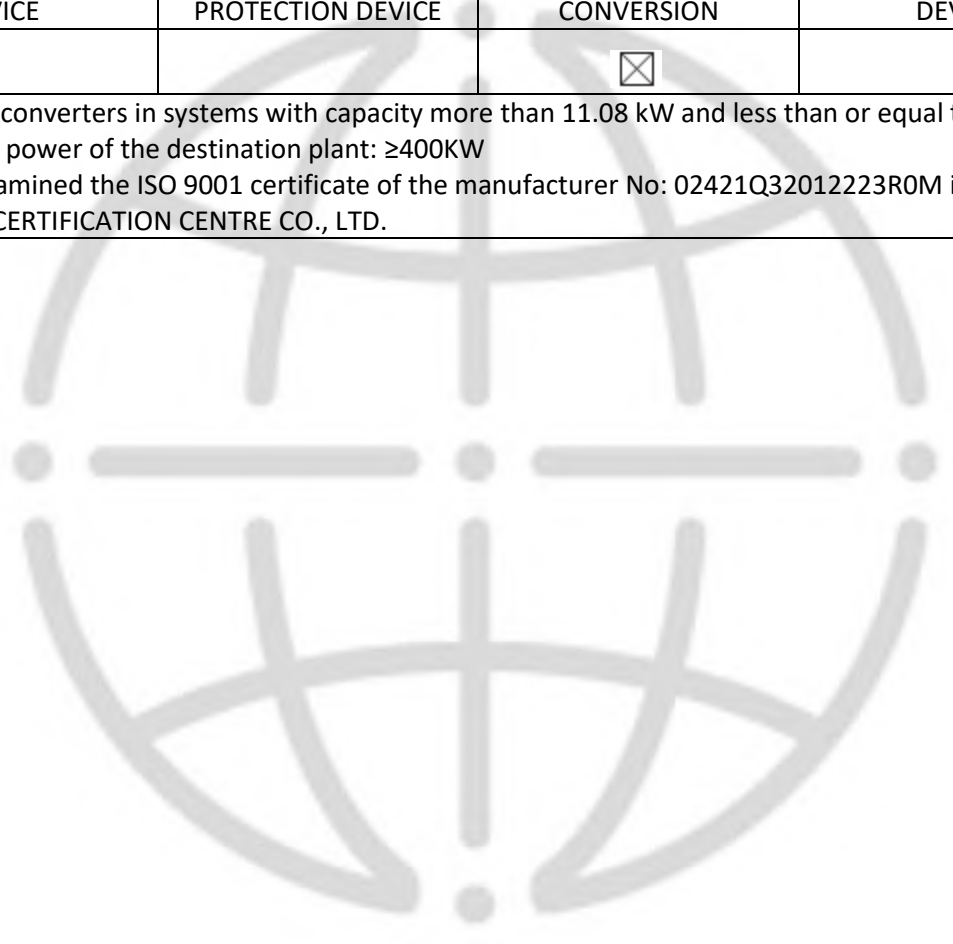
Model	MID 17KTL3- X2	MID 20KTL3- X2	MID 25KTL3- X2	MID 30KTL3- X2	MID 30KTL3- X2-1	MID 33KTL3- X2	MID 36KTL3- X2	MID 40KTL3- X2	MID 50KTL3- X2
Max. DC voltage	1100Vdc								
MPP voltage range	200-1000Vdc								
Full Load MPP voltage range	420-850Vdc		480-850Vdc		400-850Vdc			450-850Vdc	
No. of MPP trackers	2			3			4		
No. of PV strings per MPP trackers	2/2		2/3		2/2/2			2/2/2/2	
Max. input current per MPP trackers [A]	32/32		32/36	32/48	32/32/32			32/32/32/32	
Max. short-circuit current per MPP trackers [A]	40/40		40/45	40/60	40/40/40			40/40/40/40	
AC rated power [KW]	17	20	25	30	30	33	36	40	50
Max. AC apparent power [KVA]	18.8	22.2	27.7	33.3	30.0	36.6	40.0	44.4	55.5
Rated AC voltage	3W/N/PE, 230V/400V								
AC grid frequency	50/60Hz								
Rated AC output current [A]	24.6	29.0	36.2	43.5	43.5	47.8	52.2	58.0	72.5
Max. output current [A]	28.6	33.6	42.0	50.5	45.5	55.5	60.6	67.3	84.1
Adjustable power factor	0.8Leading ...0.8Lagging								
Operating temperature range	-25°C ... +60°C (>45°C Derating)								
Protection degree	IP66								
Software Version	DM1.0								

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-230161.

TYPE OF APPARATUS: PV Grid Inverter			
Number of phases: three-phase			
DISCONNECTION DEVICE	INTERFACE PROTECTION DEVICE	DEVICE FOR CONVERSION	ROTATING GENERATOR DEVICE
		<input checked="" type="checkbox"/>	
<p>1, The static converters in systems with capacity more than 11.08 kW and less than or equal to 6 MW</p> <p>2, Maximum power of the destination plant: $\geq 400\text{KW}$</p> <p>3, Having examined the ISO 9001 certificate of the manufacturer No: 02421Q32012223R0M issued by: UNIVERSAL CERTIFICATION CENTRE CO., LTD.</p>			



Certificate of Conformity

Certificate Number: CN-PV-230146

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:	PV Grid Inverter
Ratings & Principle Characteristics:	See appendix of Certificate of Conformity
Model:	MID 17KTL3-X2, MID 20KTL3-X2, MID 25KTL3-X2, MID 30KTL3-X2, MID 30KTL3-X2-1, MID 33KTL3-X2, MID 36KTL3-X2, MID 40KTL3-X2, MID 50KTL3-X2
Brand Name<s>:	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, 2 nd 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>:	221226019GZU-001 Issued by Intertek Testing Services Shenzhen Ltd. Guangzhou Branch accredited by IAS (TL-395) in accordance with ISO/IEC 17025:2017

Additional information in Appendix.



Signature

Certification Manager: Grady Ye

Date: 04 April 2023



PRD N° 306B

APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-230146.

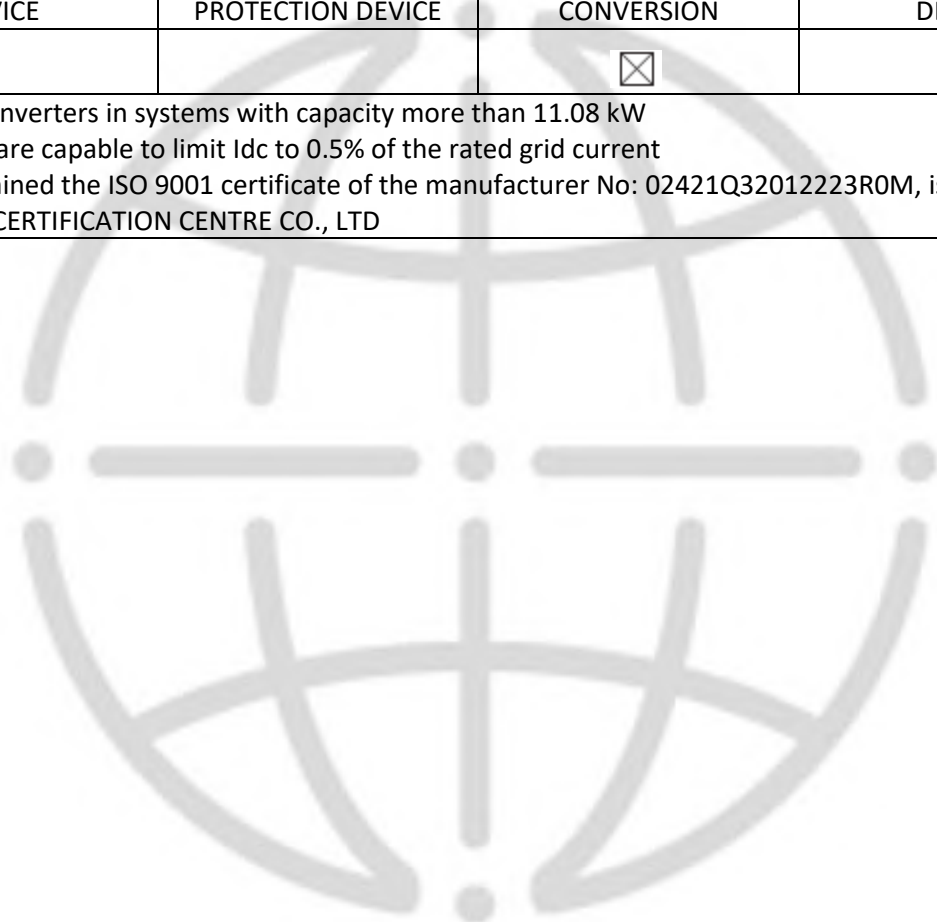
Model	MID 17KTL3- X2	MID 20KTL3- X2	MID 25KTL3- X2	MID 30KTL3- X2	MID 30KTL3- X2-1	MID 33KTL3- X2	MID 36KTL3- X2	MID 40KTL3- X2	MID 50KTL3- X2
Max. DC voltage	1100Vdc								
MPP voltage range	200-1000Vdc								
Full Load MPP voltage range	420-850Vdc		480-850Vdc		400-850Vdc			450-850Vdc	
No. of MPP trackers	2				3			4	
No. of PV strings per MPP trackers	2/2			2/3		2/2/2		2/2/2/2	
Max. input current per MPP trackers [A]	32/32		32/36	32/48	32/32/32			32/32/32/32	
Max. short-circuit current per MPP trackers [A]	40/40		40/45	40/60	40/40/40			40/40/40/40	
AC rated power [KW]	17	20	25	30	30	33	36	40	50
Max. AC apparent power [KVA]	18.8	22.2	27.7	33.3	30.0	36.6	40.0	44.4	55.5
Rated AC voltage	3W/N/PE, 230V/400V								
AC grid frequency	50/60Hz								
Rated AC output current [A]	24.6	29.0	36.2	43.5	43.5	47.8	52.2	58.0	72.5
Max. output current [A]	28.6	33.6	42.0	50.5	45.5	55.5	60.6	67.3	84.1
Adjustable power factor	0.8Leading ...0.8Lagging								
Operating temperature range	-25°C ... +60°C (>45°C Derating)								
Protection degree	IP66								
Software Version	DM1.0								

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-230146.

TYPE OF APPARATUS: PV Grid Inverter			
Number of phases: three-phase			
DISCONNECTION DEVICE	INTERFACE PROTECTION DEVICE	DEVICE FOR CONVERSION	ROTATING GENERATOR DEVICE
		<input checked="" type="checkbox"/>	
<p>The static converters in systems with capacity more than 11.08 kW The devices are capable to limit Idc to 0.5% of the rated grid current Having examined the ISO 9001 certificate of the manufacturer No: 02421Q32012223R0M, issued by: UNIVERSAL CERTIFICATION CENTRE CO., LTD</p>			



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Certificate of Conformity

Certificate Number: CN-PV-230075

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:	PV Grid inverter
Ratings & Principle Characteristics:	See appendix of Certificate of Conformity
Model:	MID 6KTL3-XL2, MID 8KTL3-XL2, MID 10KTL3-XL2, MID 11KTL3-XL2 MID 12KTL3-XL2, MID 15KTL3-XL2, MID 17KTL3-XL2, MID 20KTL3-XL2, MID 22KTL3-XL2, MID 25KTL3-XL2, MID 17KTL3-X2, MID 20KTL3-X2, MID 25KTL3-X2, MID 30KTL3-X2, MID 30KTL3-X2-1, MID 33KTL3-X2, MID 36KTL3-X2, MID 40KTL3-X2, MID 50KTL3-X2
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, 2 nd 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>:	220908147GZU-003
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: 06 March 2023



PRD N° 306B

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-230075.

Model	MID 6KTL3- XL2	MID 8KTL3- XL2	MID 10KTL3- XL2	MID 11KTL3- XL2	MID 12KTL3- XL2	MID 15KTL3- XL2	MID 17KTL3- XL2	MID 20KTL3- XL2	MID 22KTL3- XL2	MID 25KTL3- XL2
Max. DC voltage	1100V									
MPP voltage range	200-850V									
Full-load voltage range	200-650V									
No. of MPP trackers	2					4				
No. of PV strings per MPP trackers	2/2					2/2/2/2				
Max. input current per MPP trackers	32/36					32/32/32/32				
Max. short-circuit current per MPP trackers	40/45					40/40/40/40				
AC rated power	6000W	8000W	10000W	11000W	12000W	15000W	17000W	20000W	22000W	25000W
Max. AC apparent power	6600V A	8800V A	<u>11100V</u> A	<u>12200V</u> A	<u>13300V</u> A	<u>16600V</u> A	18800V A	<u>22200V</u> A	24400V A	27700V A
Nominal AC voltage	3W+PE, 3W/N/PE,127V/220V; 133V/230V									
AC grid frequency	50/60 Hz									
Rated AC output current@127 V	15.7A	21.0A	26.2A	28.9A	31.5A	39.4A	44.6A	52.5A	57.7A	65.6A
Rated AC output current@133 V	15.0A	20.1A	25.1A	27.6A	30.1A	37.6A	42.6A	50.1A	55.1A	62.7A
Max. output current	17.5A	23.3A	29.2A	32.1A	35.0A	43.7A	49.6A	58.3A	64.2A	72.9A
Adjustable power factor	0.8Leading ...0.8Lagging									
Operating temperature range	-25°C ... +60°C (>45°C Derating)									
Protection degree	IP66									
Software Version	DM1.0									

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-230075.

Model	MID 17KTL3- X2	MID 20KTL3- X2	MID 25KTL3- X2	MID 30KTL3- X2	MID 30KTL3- X2-1	MID 33KTL3- X2	MID 36KTL3- X2	MID 40KTL3- X2	MID 50KTL3- X2
Max. DC voltage	1100Vdc								
MPP voltage range	200-1000Vdc								
Full Load MPP voltage range	420-850Vdc		480-850Vdc		400-850Vdc			450-850Vdc	
No. of MPP trackers	2				3			4	
No. of PV strings per MPP trackers	2/2			2/3	2/2/2			2/2/2/2	
Max. input current per MPP trackers [A]	32/32		32/36	32/48	32/32/32			32/32/32/32	
Max. short-circuit current per MPP trackers [A]	40/40		40/45	40/60	40/40/40			40/40/40/40	
AC rated power [KW]	17	20	25	30	30	33	36	40	50
Max. AC apparent power [KVA]	18.8	22.2	27.7	33.3	30.0	36.6	40.0	44.4	55.5
Rated AC voltage	3W/N/PE, 230V/400V								
AC grid frequency	50/60Hz								
Rated AC output current [A]	24.6	29.0	36.2	43.5	43.5	47.8	52.2	58.0	72.5
Max. output current [A]	28.6	33.6	42.0	50.5	45.5	55.5	60.6	67.3	84.1
Adjustable power factor	0.8Leading ...0.8Lagging								
Operating temperature range	-25°C ... +60°C (>45°C Derating)								
Protection degree	IP66								
Software Version	DM1.0								

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-230075.

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 to EN 62116	Within 2s		

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Certificate of Conformity

Certificate Number: CN-PV-220286

On the basis of the tests undertaken, the samples of the below product have been found to comply with the requirements of the referenced specifications /standards 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 Name & Address:	Shenzhen Growatt New Energy Co., Ltd. 4-13/F, Building A, Sino-German (Europe) Industrial Park, Hangcheng Ave, Bao'an District, Shenzhen, China
Product Description:	PV Grid inverter
Ratings & Principle Characteristics:	See Annex to Certificate of Conformity
Models/Type References:	MID 6KTL3-XL2, MID 8KTL3-XL2, MID 10KTL3-XL2, MID 11KTL3-XL2, MID 12KTL3-XL2, MID 15KTL3-XL2, MID 17KTL3-XL2, MID 20KTL3-XL2, MID 22KTL3-XL2, MID 25KTL3-XL2, MID 17KTL3-X2, MID 20KTL3-X2, MID 25KTL3-X2, MID 30KTL3-X2, MID 30KTL3-X2-1, MID 33KTL3-X2, MID 36KTL3-X2, MID 40KTL3-X2, MID 50KTL3-X2
Brand Name:	GROWATT
Specification/Standard:	IEC 61727:2004 Photovoltaic (PV) systems – Characteristics of the utility interface IEC 62116:2014 Test procedure of islanding prevention measures for utility-interconnected photovoltaic inverters
Certificate Issuing Office Name & Address:	Intertek Testing Services Ltd. Shanghai West Area, 2 nd 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:	220908147GZU-001, 220908147GZU-002

Additional information in Appendix.



Signature

Certification Manager: Grady Ye
Date: 15 December 2022



PRD N° 306B

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-220286

Model	MID 6KTL3-XL2	MID 8KTL3-XL2	MID 10KTL3-XL2	MID 11KTL3-XL2	MID 12KTL3-XL2	MID 15KTL3-XL2	MID 17KTL3-XL2	MID 20KTL3-XL2	MID 22KTL3-XL2	MID 25KTL3-XL2
Max. DC voltage	1100V									
MPP voltage range	200-850V									
Full-load voltage range	250-650V									
No. of MPP trackers	2					4				
No. of PV strings per MPP trackers	2/2					2/2/2/2				
Max. input current per MPP trackers	32/36					32/32/32/32				
Max. short-circuit current per MPP trackers	40/45					40/40/40/40				
AC rated power	6000W	8000W	10000W	11000W	12000W	15000W	17000W	20000W	22000W	25000W
Max. AC apparent power	6600V A	8800V A	<u>11100V</u> A	<u>12200V</u> A	<u>13300V</u> A	<u>16600V</u> A	18800V A	<u>22200V</u> A	24400V A	27700V A
Nominal AC voltage	3W+PE, 3W/N/PE, 127V/220V; 133V/230V									
AC grid frequency	50/60 Hz									
Rated AC output current@127 V	15.7A	21.0A	26.2A	28.9A	31.5A	39.4A	44.6A	52.5A	57.7A	65.6A
Rated AC output current@133 V	15.0A	20.1A	25.1A	27.6A	30.1A	37.6A	42.6A	50.1A	55.1A	62.7A
Max. output current	17.5A	23.3A	29.2A	32.1A	35.0A	43.7A	49.6A	58.3A	64.2A	72.9A
Adjustable power factor	0.8Leading ...0.8Lagging									
Operating temperature range	-25°C ... +60°C (>45°C Derating)									
Protection degree	IP66									
Software Version	DM1.0									

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-220286


Model	MID 17KTL3- X2	MID 20KTL3- X2	MID 25KTL3- X2	MID 30KTL3- X2	MID 30KTL3- X2-1	MID 33KTL3- X2	MID 36KTL3- X2	MID 40KTL3- X2	MID 50KTL3- X2
Max. DC voltage	1100Vdc								
MPP voltage range	200-1000Vdc								
Full Load MPP voltage range	420-850Vdc		480-850Vdc		400-850Vdc			450-850Vdc	
No. of MPP trackers	2				3			4	
No. of PV strings per MPP trackers	2/2			2/3	2/2/2			2/2/2/2	
Max. input current per MPP trackers [A]	32/32		32/36	32/48	32/32/32			32/32/32/32	
Max. short-circuit current per MPP trackers [A]	40/40		40/45	40/60	40/40/40			40/40/40/40	
AC rated power [KW]	17	20	25	30	30	33	36	40	50
Max. AC apparent power [KVA]	18.8	22.2	27.7	33.3	30.0	36.6	40.0	44.4	55.5
Rated AC voltage	3W/N/PE, 230V/400V								
AC grid frequency	50/60Hz								
Rated AC output current [A]	24.6	29.0	36.2	43.5	43.5	47.8	52.2	58.0	72.5
Max. output current [A]	28.6	33.6	42.0	50.5	45.5	55.5	60.6	67.3	84.1
Adjustable power factor	0.8Leading ...0.8Lagging								
Operating temperature range	-25°C ... +60°C (>45°C Derating)								
Protection degree	IP66								
Software Version	DM1.0								

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Test Verification of Conformity

Verification Number: 220908133GZU-VOC001

On the basis of the referenced test report(s), sample(s) tested of the below product have been found to comply with the standards harmonized with the regulation(s) listed on this verification at the time the tests were carried out. Other standards and Regulations may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it <them>.

Once compliance with all product relevant  mark regulations are verified, including any relevant e.g. risk assessment and production control, the manufacturer may indicate compliance by signing a Declaration of Conformity themselves and applying the mark to products identical to the tested sample(s).

Applicant Name & Address:	Shenzhen Growatt New Energy Co., Ltd. 4-13/F, Building A, Sino-German (Europe) Industrial Park, Hangcheng Ave, Bao'an District, Shenzhen, China
Product Description:	PV Grid inverter
Ratings & Principle Characteristics:	See Annex to Certificate of Conformity
Models/Type References:	MID 6KTL3-XL2, MID 8KTL3-XL2, MID 10KTL3-XL2, MID 11KTL3-XL2, MID 12KTL3-XL2, MID 15KTL3-XL2, MID 17KTL3-XL2, MID 20KTL3-XL2, MID 22KTL3-XL2, MID 25KTL3-XL2, MID 17KTL3-X2, MID 20KTL3-X2, MID 25KTL3-X2, MID 30KTL3-X2, MID 30KTL3-X2-1, MID 33KTL3-X2, MID 36KTL3-X2, MID 40KTL3-X2, MID 50KTL3-X2
Brand Name:	GROWATT
Relevant Standards/Regulations:	IEC/EN 62109-1: 2010 Safety of power converters for use in photovoltaic power systems – Part 1: General requirements IEC/EN 62109-2: 2011 Safety of power converters for use in photovoltaic power systems – Part 2: Particular requirements for inverters Electrical Equipment (Safety) Regulations 2016
Verification Issuing Office Name & Address:	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
Date of Tests:	10 Sep 2022 to 25 Feb 2023
Test Report Number(s):	220908133GZU-001, 220908133GZU-002

Additional information in Appendix.



Signature

Name: Tommy Zhong

Position: Technical Manager

Date: 11 April 2023

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APPENDIX: Test Verification of Conformity

This is an Appendix to Test Verification of Conformity Number: 220908133GZU-VOC001.

Ratings &
Principle
Characteristics:

Model	MID 6KTL3 -XL2	MID 8KTL3 -XL2	MID 10KTL3 -XL2	MID 11KTL3 -XL2	MID 12KTL3 -XL2	MID 15KTL3 -XL2	MID 17KTL3 -XL2	MID 20KTL3 -XL2	MID 22KTL3 -XL2	MID 25KTL3 -XL2
Max. DC voltage	1100V									
Max. input current per MPP trackers	32/36					32/32/32/32				
Max. short-circuit current per MPP trackers	40/45					40/40/40/40				
AC rated power	6000 W	8000 W	10000 W	11000 W	12000 W	15000 W	17000 W	20000 W	22000 W	25000 W
Max. AC apparent power	6600 VA	8800 VA	<u>11100</u> VA	<u>12200</u> VA	<u>13300</u> VA	<u>16600</u> VA	18800 VA	<u>22200</u> VA	24400 VA	27700 VA
Nominal AC voltage	3W+PE, 3W/N/PE, 127V/220V; 133V/230V									
AC grid frequency	50/60 Hz									
Max. output current	17.5A	23.3A	29.2A	32.1A	35.0A	43.7A	49.6A	58.3A	64.2A	72.9A
Adjustable power factor	0.8Leading ...0.8Lagging									
Operating temperature range	-25°C ... +60°C (>45°C Derating)									
Protection degree	IP66									
Software Version	DM1.0									



Signature

Name: Tommy Zhong

Position: Technical Manager

Date: 11 April 2023

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APPENDIX: Test Verification of Conformity

This is an Appendix to Test Verification of Conformity Number: 220908133GZU-VOC001.

Ratings &
Principle
Characteristics:

Model	MID 17KTL3- X2	MID 20KTL3- X2	MID 25KTL3- X2	MID 30KTL3- X2	MID 30KTL3- X2-1	MID 33KTL3- X2	MID 36KTL3- X2	MID 40KTL3- X2	MID 50KTL3- X2
Max. DC voltage	1100Vdc								
Max. input current per MPP trackers [A]	32/32		32/36	32/48	32/32/32			32/32/32/32	
Max. short-circuit current per MPP trackers [A]	40/40		40/45	40/60	40/40/40			40/40/40/40	
AC rated power [KW]	17	20	25	30	30	33	36	40	50
Max. AC apparent power [KVA]	18.8	22.2	27.7	33.3	30.0	36.6	40.0	44.4	55.5
Rated AC voltage	3W/N/PE, 230V/400V								
AC grid frequency	50/60Hz								
Max. output current [A]	28.6	33.6	42.0	50.5	45.5	55.5	60.6	67.3	84.1
Adjustable power factor	0.8Leading ...0.8Lagging								
Operating temperature range	-25°C ... +60°C (>45°C Derating)								
Protection degree	IP66								
Software Version	DM1.0								



Signature

Name: Tommy Zhong

Position: Technical Manager

Date: 11 April 2023

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