

## Declaration Of Compliance

### We, The Manufacturer

**SHENZHEN GROWATT NEW ENERGY TECHNOLOGY CO.,LTD**

### Declare The Products:

MIC 1000TL-X, MIC 1500TL-X, MIC 2000TL-X, MIC 2500TL-X, MIC3000TL-X,  
Growatt 1500-S, Growatt 2000-S, Growatt 3000-S,  
Growatt 3600MTL-S, Growatt4200MTL-S, Growatt 5500MTL-S,  
Growatt 7000MTL-S, Growatt 8000MTL-S, Growatt8000MTLP-S,  
Growatt9000MTLP-S,Growatt10500MTLP-S  
MIN 2500TL-X, MIN 3000TL-X, MIN 4200TL-X, MIN 5000TL-X, MIN 6000TL-X  
Growatt 18000UE, Growatt 20000UE, Growatt 7000TL3-S, Growatt 8000TL3-S,  
Growatt 10000TL3-S, Growatt11000TL3-S, Growatt 12000TL3-S, Growatt15000TL3-S,  
Growatt 17000TL3-S, Growatt20000TL3-S, Growatt25000TL3-S,  
Growatt 30000TL3-S, Growatt 33000TL3-S, Growatt 40000TL3-NS  
MAX50KTL3 LV, MAX60KTL3 LV, MAX70KTL3 LV, MAX75KTL3 LV, MAX80KTL3 LV  
MAX80KTL3 MV,MAX90KTL3 MV,MAX100KTL3 MV  
Growatt 15000TL3-SL, Growatt20000TL3-SL, Growatt22000TL3-SL  
MID15KTL3-X, MID17KTL3-X,MID20KTL3-X,MID22KTL3-X,MID25KTL3-X;  
MID25KTL3-X1,MID30KTL3-X,MID33KTL3-X, MID36KTL3-X,MID40KTL3-X  
MAC50KTL3-X LV/MAC50KTL3-X MV,MAC60KTL3-X LV/MAC60KTL3-X MV  
MAC70KTL3-X MV  
MAX 185KTL3-X HV, MAX 216KTL3-X HV, MAX 250KTL3-X HV, MAX 253KTL3-X HV,  
MOD 10KTL3-X, MOD 11KTL3-X, MOD 12KTL3-X, MOD 13KTL3-X, MOD 15KTL3-X  
MIN 7000TL-X (E) , MIN 8000TL-X (E) , MIN 9000TL-X ,MIN 10000TL-X  
MAX100KTL3-X LV, MAX110KTL3-X LV ,MAX120KTL3-X LV ,MAX125KTL3-X LV  
MAC 15KTL3-XL, MAC 20KTL3-XL, MAC 22KTL3-XL MAC 25KTL3-XL, MAC 30KTL3-XL, MAC  
36KTL3-XL  
MID 10K TL3-XL, MID 12K TL3-XL, MID 15K TL3-XL, MID 20K TL3-XL

The Growatt inverters listed above comply with the relevant requirements of the Brazilian standard:  
**ABNT NBR 16149:2013** Sistemas fotovoltaicos (FV) – Características da interface de conexão com a rede elétrica de distribuição – Primeira edição (01.03.2013)

[Photovoltaic (PV) systems – Characteristics of the utility interface – first edition, March 01-2013]

As results after internal testing made in accordance to the applicable conformance test protocol:

**ABNT NBR 16150:2013** Sistemas fotovoltaicos (FV) — Características da interface de conexão com a rede elétrica de distribuição — Procedimento de ensaio de conformidade - Primeira edição (04.03.2013)

[Photovoltaic (PV) systems – Characteristics of the utility interface – Conformity test procedure.

First edition, March 04-2013]

**ABNT NBR 62116-2012** Procedimento de ensaio de anti-ilhamento para inversores de sistemas

fotovoltaico conectados à rede.

Please refer to the conditions and restriction of use specified in the table, as well as in the following notes.

Inverter Model	Power	Nominal voltage/frequency No. of phase	Cos(phi)=f(p)	Reactive Power Capability	FRT capability
Growatt 1500-S	1.5kw	220V/230V/240V/60Hz,1-phase	No	No	Yes
Growatt 2000-S	2kw	220V/230V/240V/60Hz,1-phase	No	No	Yes
Growatt 3000-S	3kw	220V/230V/240V/60Hz,1-phase	No	No	Yes
Growatt 3600MTL-S	3.6kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
Growatt 4200MTL-S	4.2kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
Growatt 5500MTL-S	5kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
Growatt 7000MTL-S,	7kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
Growatt 8000MTL-S,	8kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
Growatt8000MTLP-S	8kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
Growatt9000MTLP-S	9kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
Growatt10500MTLP-S	10.5kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIN 2500TL-X	2.5kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIN 3000TL-X	3kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIN 4200TL-X	4.2kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIN 5000TL-X	5kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIN 6000TL-X	6kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
Growatt 18000UE	18kw	380V/60Hz,3-phase	Yes	Yes	Yes
Growatt 20000UE	20kw	380V/60Hz,3-phase	Yes	Yes	Yes
Growatt 11000TL3-S	11kw	380V/60Hz,3-phase	Yes	Yes	Yes
Growatt 12000TL3-S	12kw	380V/60Hz,3-phase	Yes	Yes	Yes
Growatt 13000TL3-S	13kw	380V/60Hz,3-phase	Yes	Yes	Yes
Growatt 15000TL3-S	15kw	380V/60Hz,3-phase	Yes	Yes	Yes
Growatt 17000TL3-S	17kw	380V/60Hz,3-phase	Yes	Yes	Yes
Growatt 20000TL3-S	20kw	380V/60Hz,3-phase	Yes	Yes	Yes
Growatt 25000TL3-S	25kw	380V/60Hz,3-phase	Yes	Yes	Yes
Growatt 30000TL3-S	30kw	380V/60Hz,3-phase	Yes	Yes	Yes
Growatt 33000TL3-S	33kw	380V/60Hz,3-phase	Yes	Yes	Yes
Growatt 40000TL3-NS	40kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX50KTL3 LV	50kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX60KTL3 LV	60kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX70KTL3 LV	70kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX75KTL3 LV	75kw	380V/60Hz,3-phase	Yes	Yes	Yes

MAX80KTL3 LV	80kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX80KTL3 MV	80kw	480V/60Hz,3-phase	Yes	Yes	Yes
MAX90KTL3 MV	90kw	480V/60Hz,3-phase	Yes	Yes	Yes
MAX100KTL3 MV	100kw	480V/60Hz,3-phase	Yes	Yes	Yes
Growatt 15000TL3-SL	15kw	220V/60Hz,3-phase	Yes	Yes	Yes
Growatt 20000TL3-SL	20kw	220V/60Hz,3-phase	Yes	Yes	Yes
Growatt 22000TL3-SL	22kw	220V/60Hz,3-phase	Yes	Yes	Yes
MID17KTL3-X	17kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID20KTL3-X	20kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID22KTL3-X	22kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID25KTL3-X	25kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAC50KTL3-X LV	50kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAC50KTL3-X MV	50kw	480V/60Hz,3-phase	Yes	Yes	Yes
MAC60KTL3-X LV	60kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAC60KTL3-X MV	60kw	480V/60Hz,3-phase	Yes	Yes	Yes
MAC70KTL3-X MV	70kw	480V/60Hz,3-phase	Yes	Yes	Yes
MID25KTL3-X1	25kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID30KTL3-X	30kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID33KTL3-X	33kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID36KTL3-X	36kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID40KTL3-X	40kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX 185KTL3-X HV	185kw	800V/60Hz,3-phase	Yes	Yes	Yes
MAX 216KTL3-X HV	216kw	800V/60Hz,3-phase	Yes	Yes	Yes
MAX 250KTL3-X HV	250kw	800V/60Hz,3-phase	Yes	Yes	Yes
MAX 253KTL3-X HV	253kw	800V/60Hz,3-phase	Yes	Yes	Yes
MOD 10KTL3-X	10kw	380V/60Hz,3-phase	Yes	Yes	Yes
MOD 11KTL3-X	11kw	380V/60Hz,3-phase	Yes	Yes	Yes
MOD 12KTL3-X	12kw	380V/60Hz,3-phase	Yes	Yes	Yes
MOD 13KTL3-X	13kw	380V/60Hz,3-phase	Yes	Yes	Yes
MOD 15KTL3-X	15kw	380V/60Hz,3-phase	Yes	Yes	Yes
MIC 1000TL-X	1kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIC 1500TL-X	1.5kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIC 2000TL-X	2kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIC 2500TL-X	2.5kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIC 3000TL-X	3kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIN 7000TL-X (E)	7kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIN 8000TL-X (E)	8kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIN 9000TL-X	9kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MIN 10000TL-X	10kw	220V/230V/240V/60Hz,1-phase	Yes	Yes	Yes
MAX100KTL3-X LV	100kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX110KTL3-X LV	110kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX120KTL3-X LV	120kw	380V/60Hz,3-phase	Yes	Yes	Yes

MAX125KTL3-X LV	125kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAC 15KTL3-XL	15kw	220V/60Hz,3-phase	Yes	Yes	Yes
MAC 20KTL3-XL	20kw	220V/60Hz,3-phase	Yes	Yes	Yes
MAC 22KTL3-XL	22kw	220V/60Hz,3-phase	Yes	Yes	Yes
MAC 25KTL3-XL	25kw	220V/60Hz,3-phase	Yes	Yes	Yes
MAC 30KTL3-XL	30kw	220V/60Hz,3-phase	Yes	Yes	Yes
MAC 36KTL3-XL	36kw	220V/60Hz,3-phase	Yes	Yes	Yes
MID 10K TL3-XL	10kw	220V/60Hz,3-phase	Yes	Yes	Yes
MID 12K TL3-XL	12kw	220V/60Hz,3-phase	Yes	Yes	Yes
MID 15K TL3-XL	15kw	220V/60Hz,3-phase	Yes	Yes	Yes
MID 20K TL3-XL	20kw	220V/60Hz,3-phase	Yes	Yes	Yes

Manufacturer

Shenzhen Growatt New Energy Technology CO., LTD

R&D Director

Mr.Woody Wu

Woody  
2020.1.10

# Declaration Of Compliance

**We, The Manufacturer**  
**SHENZHEN GROWATT NEW ENERGY CO.,LTD**

**Declare The Products:**

MIC 1000TL-X, MIC 1500TL-X, MIC 2000TL-X, MIC 2500TL-X, MIC3000TL-X,  
MIN 2500TL-X, MIN 3000TL-X, MIN 4200TL-X, MIN 5000TL-X, MIN 6000TL-X  
MAX50KTL3 LV, MAX60KTL3 LV, MAX70KTL3 LV, MAX75KTL3 LV, MAX80KTL3 LV  
MAX80KTL3 MV,MAX90KTL3 MV,MAX100KTL3 MV  
MID15KTL3-X,MID17KTL3-X,MID20KTL3-X,MID22KTL3-X,MID25KTL3-X;  
MID25KTL3-X1,MID30KTL3-X,MID33KTL3-X, MID36KTL3-X,MID40KTL3-X  
MAC50KTL3-X LV/MAC50KTL3-X MV,MAC60KTL3-X LV/MAC60KTL3-X MV  
MAC70KTL3-X MV  
MAX 185KTL3-X HV,MAX 216KTL3-X HV, MAX 250KTL3-X HV,MAX 253KTL3-X HV,  
MOD 10KTL3-X, MOD 11KTL3-X, MOD 12KTL3-X, MOD 13KTL3-X, MOD 15KTL3-X  
MIN 7000TL-X (E) ,MIN 8000TL-X (E) ,MIN 9000TL-X ,MIN 10000TL-X  
MAX100KTL3-X LV, MAX110KTL3-X LV ,MAX120KTL3-X LV ,MAX125KTL3-X LV  
MAC 15KTL3-XL, MAC 20KTL3-XL, MAC 22KTL3-XL MAC 25KTL3-XL, MAC 30KTL3-XL,  
MAC 36KTL3-XL  
MID 10K TL3-XL, MID 12K TL3-XL, MID 15K TL3-XL, MID 20K TL3-XL  
MAX 50 KTL3-XL2, MAX 60 KTL3-XL2, MAX 70 KTL3-XL2, MAX 75KTL3-XL2,

The Growatt inverters listed above comply with the relevant requirements of the Brazilian standard:

**ABNT NBR 16149:2013** Sistemas fotovoltaicos (FV) – Características da interface de conexão com a rede elétrica de distribuição – Primeira edição (01.03.2013)

[Photovoltaic (PV) systems – Characteristics of the utility interface – first edition, March 01-2013]

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Please refer to the conditions and restriction of use specified in the table, as well as in the following notes.

Inverter Model	Power	Nominal voltage/frequency No. of phase	Cos(phi)=f(p)	Reactive Power Capability	FRT capability
MIC 1000TL-X	1kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIC 1500TL-X	1.5kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIC 2000TL-X	2kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIC 2500TL-X	2.5kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIC 3000TL-X	3kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIN 2500TL-X	2.5kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIN 3000TL-X	3kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIN 4200TL-X	4.2kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIN 5000TL-X	5kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIN 6000TL-X	6kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIN 7000TL-X(E)	7kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIN 8000TL-X(E)	8kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIN 9000TL-X	9kw	220V/60Hz,1-phase	Yes	Yes	Yes
MIN 10000TL-X	10kw	220V/60Hz,1-phase	Yes	Yes	Yes
MID 10K TL3-XL	10kw	220V/60Hz,3-phase	Yes	Yes	Yes
MID 12K TL3-XL	12kw	220V/60Hz,3-phase	Yes	Yes	Yes
MID 15K TL3-XL	15kw	220V/60Hz,3-phase	Yes	Yes	Yes
MID 20K TL3-XL	20kw	220V/60Hz,3-phase	Yes	Yes	Yes
MAC 15KTL3-XL	15kw	220V/60Hz,3-phase	Yes	Yes	Yes
MAC 20KTL3-XL	20kw	220V/60Hz,3-phase	Yes	Yes	Yes
MAC 22KTL3-XL	22kw	220V/60Hz,3-phase	Yes	Yes	Yes
MAC 25KTL3-XL	25kw	220V/60Hz,3-phase	Yes	Yes	Yes
MAC 30KTL3-XL	30kw	220V/60Hz,3-phase	Yes	Yes	Yes
MAC 36KTL3-XL	36kw	220V/60Hz,3-phase	Yes	Yes	Yes
MAX 50 KTL3-XL2	50kW	220V/60Hz,3-phase	Yes	Yes	Yes
MAX 60 KTL3-XL2	60kW	220V/60Hz,3-phase	Yes	Yes	Yes
MAX 70 KTL3-XL2	70kW	220V/60Hz,3-phase	Yes	Yes	Yes
MAX 75 KTL3-XL2	75kW	220V/60Hz,3-phase	Yes	Yes	Yes
MOD 10KTL3-X	10kw	380V/60Hz,3-phase	Yes	Yes	Yes
MOD 11KTL3-X	11kw	380V/60Hz,3-phase	Yes	Yes	Yes
MOD 12KTL3-X	12kw	380V/60Hz,3-phase	Yes	Yes	Yes
MOD 13KTL3-X	13kw	380V/60Hz,3-phase	Yes	Yes	Yes
MOD 15KTL3-X	15kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID17KTL3-X	17kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID20KTL3-X	20kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID22KTL3-X	22kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID25KTL3-X	25kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID25KTL3-X1	25kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID30KTL3-X	30kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID33KTL3-X	33kw	380V/60Hz,3-phase	Yes	Yes	Yes

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

MID36KTL3-X	36kw	380V/60Hz,3-phase	Yes	Yes	Yes
MID40KTL3-X	40kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAC50KTL3-X LV	50kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAC60KTL3-X LV	60kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX50KTL3 LV	50kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX60KTL3 LV	60kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX70KTL3 LV	70kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX75KTL3 LV	75kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX80KTL3 LV	80kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX100KTL3-X LV	100kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX110KTL3-X LV	110kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX120KTL3-X LV	120kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAX125KTL3-X LV	125kw	380V/60Hz,3-phase	Yes	Yes	Yes
MAC50KTL3-X MV	50kw	480V/60Hz,3-phase	Yes	Yes	Yes
MAC60KTL3-X MV	60kw	480V/60Hz,3-phase	Yes	Yes	Yes
MAC70KTL3-X MV	70kw	480V/60Hz,3-phase	Yes	Yes	Yes
MAX80KTL3 MV	80kw	480V/60Hz,3-phase	Yes	Yes	Yes
MAX90KTL3 MV	90kw	480V/60Hz,3-phase	Yes	Yes	Yes
MAX100KTL3 MV	100kw	480V/60Hz,3-phase	Yes	Yes	Yes
MAX 185KTL3-X HV	185kw	800V/60Hz,3-phase	Yes	Yes	Yes
MAX 216KTL3-X HV	216kw	800V/60Hz,3-phase	Yes	Yes	Yes
MAX 250KTL3-X HV	250kw	800V/60Hz,3-phase	Yes	Yes	Yes
MAX 253KTL3-X HV	253kw	800V/60Hz,3-phase	Yes	Yes	Yes

**Manufacturer:**  
Shenzhen Growatt New Energy CO., LTD

R&D Director  
Mr. Woody Wu

Woody  
 2020.1.10

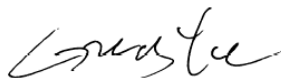
# Certificate of Conformity

Certificate Number: CN-PV-200053

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 Technology CO.,Ltd 1st East & 3rd Floor of Building A, Building B, Jiayu Industrial Park, #28, GuangHui Road, LongTeng Community, Shiyan Street, Baoan District, Shenzhen, P.R.China
Product Description:	PV Grid inverter
Ratings & Principle Characteristics:	See Annex to Certificate of Conformity
Models/Type References:	MAC 15KTL3-XL, MAC 20KTL3-XL, MAC 22KTL3-XL, MAC 25KTL3-XL, MAC 30KTL3-XL, MAC 36KTL3-XL, MAC 30KTL3-X LV, MAC 40KTL3-X LV, MAC 50KTL3-X LV, MAC 60KTL3-X LV, MAC 50KTL3-X MV, MAC 60KTL3-X MV, MAC 66KTL3-X MV, MAC 70KTL3-X MV
Brand Name:	
Specification/Standard:	See Appendix: Certificate of Conformity
Certificate Issuing Office Name & Address:	Intertek Testing Services Ltd. Shanghai 2/F (West Side), No. 707, Zhangyang Road, Free Trade Experimental Area, Shanghai, P. R. China
Test Report Number:	190829057GZU-001, 190829057GZU-001 Revision 1 190829057GZU-002, 190829057GZU-002 Revision 1

Additional information in Appendix.



**Signature**

**Certification Manager: Grady Ye**

**Date: 19 June 2020**

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-200053

Ratings &  
Principle  
Characteristics:

Model	MAC 50KTL3-X MV	MAC 60KTL3-X MV	MAC 66KTL3-X MV	MAC 70KTL3-X MV
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	52A/39A /39A	52A*3		
PV Isc	55A*3			
Nominal output voltage	3W/PE, 277/480Vac			
Nominal output Frequency	50/60Hz			
Max.output current	66.9A	80.2A	88.2A	93.6A
Max.output power	50.0KW	60.0KW	66.0KW	70.0KW
Max.apparent power	55.5KVA	66.6KVA	73.3KVA	77.7KVA
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	TK1.0			

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-200053

Ratings &  
Principle  
Characteristics:

Model	MAC 30KTL3-X LV	MAC 40KTL3-X LV	MAC 50KTL3-X LV	MAC 60KTL3-X LV
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	39A*2 /26A	39A*3	52/39/39A	52A*3
PV Isc	45A*3		55A*3	
Nominal output voltage	3W/N/PE, 230/400Vac			
Nominal output Frequency	50/60Hz			
Max.output current	48.3A	<u>64.4A</u>	<u>80.5A</u>	96.6A
Max.output power	30.0KW	40.0KW	50.0KW	60.0KW
Max.apparent power	33.3KVA	44.4KVA	55.5KVA	66.6KVA
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	TK1.0			

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-200053

Ratings &  
Principle  
Characteristics:

Model	MAC 15KTL3-XL	MAC 20KTL3-XL	MAC 22KTL3-X L	MAC 25KTL3-XL
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	52A*3			
PV Isc	55A*3			
Nominal output voltage	3W/N/PE, 127/220Vac			
Nominal output Frequency	50/60Hz			
Max.output current	43.6A	58.3A	64.0A	73.0A
Max.output power	15.0KW	20.0KW	22.0KW	25.0KW
Max.apparent power	16.6KVA	22.2KVA	24.4KVA	27.8KVA
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	TK1.0			

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-200053

Ratings &  
Principle  
Characteristics:

Model	MAC 30KTL3-XL	MAC 36KTL3-XL
Max.PV voltage	1100Vdc	
PV voltage range	200V – 1000Vdc	
Max.input current	52A/52A/52A	
PV Isc	55A*3	
Nominal output voltage	3W/N/PE, 127/220Vac	
Nominal output Frequency	50/60Hz	
Max.output current	87.4A	94.5A
Max.output power	30.0KW	36.0KW
Max.apparent power	33.3KVA	36.0KVA
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	TK1.0	

Specification/  
Standard:

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

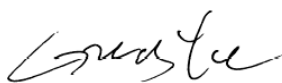
# Certificate of Conformity

Certificate Number: CN-PV-190079

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.

<b>Applicant:</b>	Shenzhen Growatt New Energy Technology CO.,Ltd 1st East & 3rd Floor of Building A, Building B, Jiayu Industrial Park, #28, GuangHui Road, LongTeng Community, Shiyan Street, Baoan District, Shenzhen, P. R. China
<b>Product:</b>	PV Grid inverter
<b>Ratings &amp; Principle Characteristics:</b>	See Appendix to Certificate of Conformity
<b>Models:</b>	MAC 15KTL3-XL, MAC 20KTL3-XL, MAC 22KTL3-XL, MAC 25KTL3-XL, MAC 30KTL3-XL, MAC 36KTL3-XL, MAC 30KTL3-X LV MAC 40KTL3-X LV, MAC 50KTL3-X LV, MAC 60KTL3-X LV, MAC 50KTL3-X MV, MAC 60KTL3-X MV, MAC 66KTL3-X MV, MAC 70KTL3-X MV
<b>Brand Name:</b>	Growatt
<b>Tested according to:</b>	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
<b>Certificate Issuing Office Name &amp; Address:</b>	Intertek Testing Services Ltd. Shanghai 2/F (West Side), No. 707, Zhangyang Road, Free Trade Experimental Area, Shanghai, P. R. China
<b>Test Reports No:</b>	191120145GZU-001, 191120145GZU-002

Additional information in Appendix.



Signature

Certification Manager: Grady Ye

Date: 6 December 2019

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-190079.

Ratings & Principle Characteristics:

Model	MAC 15KTL3-XL	MAC 20KTL3-XL	MAC 22KTL3-XL	MAC 25KTL3-XL
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	52A/52A/52A			
PV Isc	55A*3			
Nominal output voltage	3W/N/PE, 127/220Vac			
Nominal output Frequency	50/60Hz			
Max.output current	43.6A	58.3A	64.0A	73.0A
Max.output power	15.0KW	20.0KW	22.0KW	25.0KW
Max.apparent power	16.6KVA	22.2KVA	24.4KVA	27.8KVA
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	TK1.0			

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-190079.

Ratings & Principle Characteristics:

Model	MAC 30KTL3-XL	MAC 36KTL3-XL
Max.PV voltage	1100Vdc	
PV voltage range	200V – 1000Vdc	
Max.input current	52A/52A/52A	
PV Isc	55A*3	
Nominal output voltage	3W/N/PE, 127/220Vac	
Nominal output Frequency	50/60Hz	
Max.output current	87.4A	94.5A
Max.output power	30.0KW	36.0KW
Max.apparent power	33.3KVA	36.0KVA
Power factor range	0.8Leading – 0.8 lagging	
Safety level	Class I	
Ingress Protection	IP 65	
Operation Ambient Temperature	-25°C - +60°C	
Safety level	Class I	
Ingress Protection	IP 65	
Operation Ambient Temperature	-25°C - +60°C	
Software version	TK1.0	

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-190079.

Ratings & Principle Characteristics:

Model	MAC 50KTL3-X MV	MAC 60KTL3-X MV	MAC 66KTL3-X MV	MAC 70KTL3-X MV
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	52A/39A /39A	52A*3		
PV Isc	55A*3			
Nominal output voltage	3W/PE, 277/480Vac			
Nominal output Frequency	50/60Hz			
Max.output current	66.9A	80.2A	88.2A	93.6A
Max.output power	50.0KW	60.0KW	66.0KW	70.0KW
Max.apparent power	55.5KVA	66.6KVA	73.3KVA	77.7KVA
Power factor range	0.8Leading – 0.8 lagging			
Safety level	Class I			
Ingress Protection	IP 65			
Operation Ambient Temperature	-25°C - +60°C			
Safety level	Class I			
Ingress Protection	IP 65			
Operation Ambient Temperature	-25°C - +60°C			
Software version	TK1.0			

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-190079.

Ratings & Principle Characteristics:

Model	MAC 30KTL3-X LV	MAC 40KTL3-X LV	MAC 50KTL3-X LV	MAC 60KTL3-X LV
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	39A*2 / 26A	39A*3	52/39/39A	52A*3
PV Isc	45A*3		55A*3	
Nominal output voltage	3W/N/PE, 230/400Vac			
Nominal output Frequency	50/60Hz			
Max.output current	48.3A	64.4A	80.5A	96.6A
Max.output power	30.0KW	40.0KW	50.0KW	60.0KW
Max.apparent power	33.3KVA	44.4KVA	55.5KVA	66.6KVA
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	TK1.0			

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**CCIC Southern Testing Co., Ltd.**

## ***Attestation Of Conformity***

**CERTIFICATE NO.: SET2019-13364**

**Product:** PV Grid Inverter

**Model:** MAC 70KTL3-X MV

**Applicant:** Shenzhen Growatt New Energy Technology Co., LTD

**Address:** 1st East & 3rd Floor of Building A, Building B, Jiayu Industrial Park, #28,  
GuangHui Road, LongTeng Community, Shiyan Street, Baoan District,  
Shenzhen, P.R.China

This is to certify that, on the basis of the tests undertaken as per Report No. **SET2019-12713**, the submitted sample of the above item complies with:

EN 61000-6-2:2005  
EN 61000-6-3:2007+A1:2011  
IEC 61000-3-11:2000  
IEC 61000-3-12:2011

and fulfils testing requirement of the EMC directive 2014/30/EU



Note: The model MAC 30KTL3-X LV、MAC 40KTL3-X LV、MAC 50KTL3-X LV、MAC 60KTL3-X LV、MAC 50KTL3-X MV、MAC 60KTL3-X MV、MAC 66KTL3-X MV、MAC 70KTL3-X MV only PV wire is different from other parts in hardware change. Consistently, the software modifies the current limit of the corresponding circuit. Among them, the software identifies different models by model, which limits different output power.

Signed for and on behalf of

**CCIC Southern Testing Co., Ltd.**

Zhang Shuang wen, Manager

Date of Issue: Oct. 12.2019

**CCIC Southern Testing Co., Ltd.**

Electronic Testing Building, No. 43 Shahe Road, Xili Street, Nanshan District,

Shenzhen, 518055, P. R. China

Tel: 86-0755-26627338 Fax: 86-0755-26627238 <http://www.ccic-set.com>

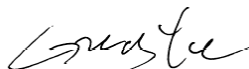
# Certificate of Conformity

Certificate Number: CN-PV-190022

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.

<b>Applicant:</b>	Shenzhen Growatt New Energy Technology Co.,Ltd 1st East & 3rd Floor of Building A, Building B, Jiayu Industrial Park, #28, GuangHui Road, LongTeng Community, Shiyan Street, Baoan District, Shenzhen, P.R.China
<b>Product:</b>	PV Grid inverter
<b>Ratings &amp; Principle Characteristics:</b>	See appendix of Certificate of Conformity
<b>Model:</b>	MAC 50KTL3-X LV, MAC 60KTL3-X LV
<b>Brand Name:</b>	Growatt
<b>Tested according to:</b>	IEC 60068-2-1:2007, Environmental testing – Part 2-1: Tests- Test A: Cold IEC 60068-2-2:2007, Environmental testing – Part 2-2: Tests- Test B: Dry heat IEC 60068-2-14:2009, Environmental testing – Part 2-14: Tests- Test N: Change of temperature IEC 60068-2-30:2005, Environmental testing – Part 2-30: Tests- Test Db: Damp heat, cyclic (12h +12h cycle) IEC 61683: 1999, Photovoltaic systems – Power conditioners – Procedure for measuring efficiency
<b>Certificate Issuing Office Name &amp; Address:</b>	Intertek Testing Services Ltd. Shanghai 2/F (West Side), No. 707, Zhangyang Road, Free Trade Experimental Area, Shanghai, P. R. China
<b>Test Report No.:</b>	190820066GZU-001

Additional information in Appendix.



**Signature**

**Certification Manager: Grady Ye**

**Date: 27 September 2019**

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-190022

### Ratings & Principle Characteristics:

Model	MAC 50KTL3-X LV	MAC 60KTL3-X LV
Max.PV voltage	1100Vdc	
PV voltage range	200V – 1000Vdc	
Max.input current	50/37.5/37.5A	50A*3
PV Isc	55A*3	
Nominal output voltage	3W/N/PE, 230/400Vac	
Nominal output Frequency	50/60Hz	
Max.output current	80.5A	96.6A
Max.output power	50.0KW	60.0KW
Max.apparent power	55.5KVA	66.6KVA
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	TK1.0	

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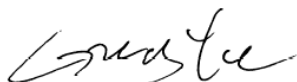
# Certificate of Conformity

Certificate Number: CN-PV-190015

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.

<b>Applicant:</b>	Shenzhen Growatt New Energy Technology CO.,Ltd 1st East & 3rd Floor of Building A, Building B, Jiayu Industrial Park, #28, GuangHui Road, LongTeng Community, Shiyan Street, Baoan District, Shenzhen, P. R. China
<b>Product:</b>	PV Grid inverter
<b>Ratings &amp; Principle Characteristics:</b>	See Appendix to Certificate of Conformity
<b>Models:</b>	MAC 40KTL3-X LV, MAC 50KTL3-X LV, MAC 60KTL3-X LV, MAC 50KTL3-X MV, MAC 60KTL3-X MV, MAC 66KTL3-X MV, MAC 70KTL3-X MV
<b>Brand Name:</b>	Growatt
<b>Tested according to:</b>	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
<b>Certificate Issuing Office Name &amp; Address:</b>	Intertek Testing Services Ltd. Shanghai 2/F (West Side), No. 707, Zhangyang Road, Free Trade Experimental Area, Shanghai, P. R. China
<b>Test Reports No:</b>	190820065GZU-001, 190820065GZU-002

Additional information in Appendix.



**Signature**

**Certification Manager: Grady Ye**  
**Date: 12 September 2019**

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-190015.

Ratings & Principle Characteristics:

Model	MAC 50KTL3-X MV	MAC 60KTL3-X MV	MAC 66KTL3-X MV	MAC 70KTL3-X MV
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	50A/37.5A /37.5A	50A*3		
PV Isc	55A*3			
Nominal output voltage	3W/PE, 277/480Vac			
Nominal output Frequency	50/60Hz			
Max.output current	66.9A	80.2A	88.2A	93.6A
Max.output power	50.0KW	60.0KW	66.0KW	70.0KW
Max.apparent power	55.5KVA	66.6KVA	73.3KVA	77.7KVA
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	TK1.0			

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-190015.

Ratings & Principle Characteristics:

Model	MAC 40KTL3-X LV	MAC 50KTL3-X LV	MAC 60KTL3-X LV
Max.PV voltage	1100Vdc		
PV voltage range	200V – 1000Vdc		
Max.input current	37.5A*3	50/37.5/37.5A	50A*3
PV Isc	45A*3	55A*3	
Nominal output voltage	3W/N/PE, 230/400Vac		
Nominal output Frequency	50/60Hz		
Max.output current	<u>64.4A</u>	<u>80.5A</u>	96.6A
Max.output power	40.0KW	50.0KW	60.0KW
Max.apparent power	44.4KVA	55.5KVA	66.6KVA
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	TK1.0		

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# Test Verification of Conformity

Verification Number: 190829057GZU-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 directives listed on this verification at the time the tests were carried out. Other standards and Directives may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it.

Once compliance with all product relevant **CE** mark directives 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 TECHNOLOGY CO., LTD 1st East & 3rd Floor of Building A, Building B, Jiayu Industrial Park, #28, GuangHui Road, LongTeng Community, Shiyan Street, Baoan District, Shenzhen, P.R.China
Product Description:	PV Grid inverter
Ratings & Principle Characteristics:	See Appendix: Test Verification of Conformity
Models/Type References:	MAC 30KTL3-X LV, MAC 40KTL3-X LV, MAC 50KTL3-X LV, MAC 60KTL3-X LV, MAC 50KTL3-X MV, MAC 60KTL3-X MV, MAC 66KTL3-X MV, MAC 70KTL3-X MV
Brand Name(s):	
Standard(s)/Directive(s):	See Appendix: Test Verification of Conformity
Verification Issuing Office Name & Address:	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD, Guangzhou, China
Test Report Number(s):	190829057GZU-001, 190829057GZU-002

Additional information in Appendix



**Signature**

**Name: Tommy Zhong**

**Position: Technical Manager**

**Date: 24 September 2019**

This Verification 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 Verification. Only the Client is authorized to permit copying or distribution of this Verification. 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. The observations and test/inspection results referenced in this Verification are relevant only to the sample tested/inspected. This Verification by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

## APPENDIX: Test Verification of Conformity

This is an Appendix to Test Verification of Conformity Number: 190829057GZU-VOC001

Ratings & Principle Characteristics:

Model	MAC 50KTL3-X MV	MAC 60KTL3-X MV	MAC 66KTL3-X MV	MAC 70KTL3-X MV
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	50A/37.5A /37.5A	50A*3		
PV Isc	55A*3			
Nominal output voltage	3W/PE, 277/480Vac			
Nominal output Frequency	50/60Hz			
Max.output current	66.9A	80.2A	88.2A	93.6A
Max.output power	50.0KW	60.0KW	66.0KW	70.0KW
Max.apparent power	55.5KVA	66.6KVA	73.3KVA	77.7KVA
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	TK1.0			

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## APPENDIX: Test Verification of Conformity

This is an Appendix to Test Verification of Conformity Number: 190829057GZU-VOC001

Ratings & Principle Characteristics:

Model	MAC 30KTL3-X LV	MAC 40KTL3-X LV	MAC 50KTL3-X LV	MAC 60KTL3-X LV
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	37.5A*2 /25A	37.5A*3	50A/37.5A /37.5A	50A*3
PV Isc	45A*3		55A*3	
Nominal output voltage	3W/N/PE, 230/400Vac			
Nominal output Frequency	50/60Hz			
Max.output current	48.3A	64.4A	80.5A	96.6A
Max.output power	30.0KW	40.0KW	50.0KW	60.0KW
Max.apparent power	33.3KVA	44.4KVA	55.5KVA	66.6KVA
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	TK1.0			

Standard(s)/Directive(s): 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  
 Low Voltage Directive 2014/35/EU

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**EMTEK**

Access to the World

# Certificate of Conformity

NO.: ES200115029E

The following product has been tested by us with the listed standards and found in conformity with the council EMC directive 2014/30/EU. It is possible to use CE marking to demonstrate the conformity with this EMC Directive.

**Applicant** : SHENZHEN GROWATT NEW ENERGY TECHNOLOGY CO.,LTD  
**Address** : 1st East & 3rd Floor of Building A, Building B, Jiayu Industrial Park,  
 #28, GuangHui Road, LongTeng Community, Shiyan Street, Baoan  
 District, Shenzhen, P.R.China  
**Manufacturer** : SHENZHEN GROWATT NEW ENERGY TECHNOLOGY CO.,LTD  
**Address** : 1st East & 3rd Floor of Building A, Building B, Jiayu Industrial Park,  
 #28, GuangHui Road, LongTeng Community, Shiyan Street, Baoan  
 District, Shenzhen, P.R.China  
**Trade Mark** : Growatt  
**EUT** : PV Grid Inverter  
**M/N** : MAC 15KTL3-XL, MAC 20KTL3-XL, MAC 22KTL3-XL,  
 MAC 25KTL3-XL, MAC 30KTL3-XL, MAC 36KTL3-XL,  
 MAC 30KTL3-X LV, MAC 40KTL3-X LV, MAC 50KTL3-X LV,  
 MAC 60KTL3-X LV, MAC 50KTL3-X MV, MAC 60KTL3-X MV,  
 MAC 66KTL3-X MV, MAC 70KTL3-X MV  
**Test Standards** : EN 61000-6-3:2007+A1:2011+ AC:2012,  
 IEC 61000-6-3: 2006+A1:2010,  
 EN 61000-6-2: 2005, IEC 61000-6-2:2005  
 (IEC 61000-4-2:2008, IEC 61000-4-3:2006+A1:2007+A2:2010,  
 IEC61000-4-4:2012, IEC 61000-4-5:2014, IEC 61000-4-6:2013,  
 IEC 61000-4-8:2009, IEC 61000-4-11:2004)  
**Version** : Ver.1.0



(Manager) CERTIFICATE

March 18, 2020

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 .

EMTEK (Shenzhen) Co., Ltd.

Add: Building 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China [Http://www.emtek.com.cn](http://www.emtek.com.cn) E-mail: [cs.rep@emtek.com.cn](mailto:cs.rep@emtek.com.cn)

