

# MID 25~40KTL3-X

- The maximum efficiency is up to 98.8%
- 40% compact and lighter
- AFCI function ready
- Self-consumption monitoring
- Touch key and OLED display
- Type II SPD on DC and AC side



P O W E R  
- I N G O  
T O M O -  
R R O W O



Datasheet	MID 25KTL3-X1	MID 30KTL3-X	MID 33KTL3-X	MID 36KTL3-X	MID 40KTL3-X
<b>Input data (DC)</b>					
Max. recommended PV power (for module STC)	37500W	45000W	49500W	54000W	60000W
Max. DC voltage	1100V				
Start Voltage	250V				
Normal Voltage	600V				
MPPT voltage range	200-1000V				
No. of MPP trackers	3	3	3	4	4
No. of PV strings per MPP tracker	2				
Max. input current per MPP tracker	26A				
Max. short-circuit current per MPP tracker	32A				
<b>Output data (AC)</b>					
AC nominal power	25000W	30000W	33000W	36000W	40000W
Max. AC apparent power	27700VA	33300VA*	36600VA	39600VA	44000VA
Nominal AC voltage (range*)	220V/380V, 230V/400V (340-440V)				
AC grid frequency (range*)	50/60 Hz (45-55Hz/55-65 Hz)				
Max. output current	40A	50.5A	55.5A	60.0A	66.6A
Adjustable power factor	0.8leading...0.8lagging				
THDI	<3%				
AC grid connection type	3W+N+PE				
<b>Efficiency</b>					
Max. efficiency	98.8%				
European efficiency	98.5%				
MPPT efficiency	99.9%				
<b>Protection devices</b>					
DC reverse polarity protection	Yes				
DC Switch	Yes				
AC/DC surge protection	Type II / Type II				
Insulation resistance monitoring	Yes				
AC short-circuit protection	Yes				
Ground fault monitoring	Yes				
Grid monitoring	Yes				
Anti-islanding protection	Yes				
Residual-current monitoring unit	Yes				
String monitoring	Yes				
AFCI protection	Yes				
<b>General information</b>					
Dimensions (W / H / D)	575/420/225mm				
Weight	30kg				
Operating temperature range	- 25°C ... +60°C				
Nighttime power consumption	< 1W				
Topology	Transformerless				
Cooling	Smart air cooling				
Protection degree	IP66				
Relative humidity	0-100%				
Altitude	4000m				
DC connection	H4/MC4(Optional)				
AC connection	Cable gland+OT terminal				
Display	OLED+LED/WIFI+APP				
Interfaces: RS485 / USB / WIFI/ GPRS / RF/ LAN	Yes/Yes/Optional/Optional/Optional/Optional				
Warranty: 5 years / 10 years	Yes/Optional				
CE, VDE0126, Greece, EN50549, C10/C11, UTE C 15-712, IEC62116, IEC61727, IEC 60068, IEC 61683, CEI0-21, CEI0-16, N4105, TOR Erzeuger, G98/G99, G100, AS/NZS 3100, AS4777, UNE217001, UNE206007, PO12.2, KSC8565					

\* For Belgium C10/C11 and VDE-AR-N4105, MID 30KTL3-X max. output power is limit to 30KVA.

\* The AC voltage range and frequency range may vary depending on specific country grid standard.

All specifications are subject to change without notice.

# CE Declaration of Conformity

In terms of the Guidelines of the European Community

- Electromagnetic Compliance Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU
- RoHS Directive 2011/65/EU and its amendment EU 2015/863

The devices stated below have been developed, constructed and manufactured according to the above mentioned directives. The applied harmonized standards are shown in the following list.

	Growatt	Growatt	Growatt	Growatt	Growatt	Growatt	Growatt
<b>Growatt Product</b>	MIC 750TL-X	MIN 2500TL-X/XE/XH	MOD 3000TL3-X	MOD 10KTL3-X	MID 15KTL3-X	MAX 50KTL3 LV	MAC 30KTL3-X LV
	MIC 1000TL-X	MIN 3000TL-X/XE/XH	MOD 4000TL3-X	MOD 11KTL3-X	MID 17KTL3-X	MAX 60KTL3 LV	MAC 40KTL3-X LV
	MIC 1500TL-X	MIN 3600TL-X/XE/XH	MOD 5000TL3-X	MOD 12KTL3-X	MID 20KTL3-X	MAX 70KTL3 LV	MAC 50KTL3-X LV
	MIC 2000TL-X	MIN 4200TL-X/XE/XH	MOD 6000TL3-X	MOD 13KTL3-X	MID 25KTL3-X1	MAX 80KTL3 LV	MAC 60KTL3-X LV
	MIC 2500TL-X	MIN 4600TL-X/XE/XH	MOD 7000TL3-X	MOD 15KTL3-X	MID 30KTL3-X	MAX 60KTL3 MV	MAC 50KTL3-X MV
	MIC 3000TL-X	MIN 5000TL-X/XE/XH	MOD 8000TL3-X		MID 33KTL3-X	MAX 70KTL3 MV	MAC 60KTL3-X MV
		MIN 6000TL-X/XE/XH	MOD 9000TL3-X		MID 36KTL3-X	MAX 80KTL3 MV	MAC 70KTL3-X MV
					MID 40KTL3-X	MAX 90KTL3 MV	
						MAX 100KTL3 MV	
<b>EMC directive</b> <b>2014/30/EU</b>							
EN 61000-6-1: 2007	√						
EN 61000-6-2: 2005	√	√	√	√	√	√	√
EN 61000-6-3: 2007+A1: 2011+AC: 2012	√	√	√	√	√		√
EN 61000-6-4: 2007+A1:2011	√					√	
EN 61000-3-3: 2013		√					

EN 61000-3-2: 2006 + A2:2009		√					
EN 61000-3-11: 2000			√	√	√	√	√
EN 61000-3-12: 2011			√	√	√	√	√
<b>LVD directive</b> <b>2014/35/EU</b>							
EN 62109-1: 2010	√	√	√	√	√	√	√
EN 62109-2: 2011	√	√	√	√	√	√	√
				<b>CE</b>			

**Information:**

This declaration of conformity is not valid any longer, unless there is an explicit written confirmation by Growatt

- If the product is modified, supplemented or changed in any other way,
- Components, which are not part of the Growatt accessories kit, are integrated in the product, as well as in case the product is used or installed improperly.

Shenzhen, 18.6.2020

Shenzhen Growatt New Energy Technology Co., Ltd

Lisa Zhang

Marking Director

# Certificate of Conformity

Certificate Number: CN-PV-200110

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>	MID 17KTL3-X1, MID 20KTL3-X1, MID 22KTL3-X1, MID 25KTL3-X1, MID 30KTL3-X, MID 33KTL3-X, MID 36KTL3-X, MID 40KTL3-X
<b>Brand Name:</b>	GROWATT
<b>Tested according to:</b>	EN 50549-1: February 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 Compliant with COMMISSION REGULATION(EU)2016/631(NC RfG) Type approval for type B
<b>Certificate Issuing Office Name &amp; Address:</b>	Intertek Testing Services Ltd. Shanghai West Area, 2 <sup>nd</sup> Floor, No. 707, Zhangyang Road China (Shanghai) Pilot Free Trade Zone, Shanghai, P. R. China
<b>Test Reports No:</b>	200426142GZU-001

Additional information in Appendix.

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**Signature**

**Certification Manager: Grady Ye**

**Date: 26 August 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-200110

Ratings &  
Principle  
Characteristics:

Model	MID 17KTL3- X1	MID 20KTL3- X1	MID 22KTL3- X1	MID 25KTL3- X1
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	26A*3			
PV Isc	32A*3			
Nominal output voltage	3W/N/PE, 230/400Vac			
Nominal output Frequency	50Hz			
Max.output current	28.5A	33.3A	36.7A	41.9A
Max.output power	17000W	20000W	22000W	25000W
Max.apparent power	18800VA	22000VA	24200VA	27700VA
Power factor range	0.8Leading – 0.8 lagging			
Safety level	Class I			
Ingress Protection	IP 66			
Operation Ambient Temperature	-25°C - +60°C			
Software Version	DM1.0			

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-200110

Ratings &  
Principle  
Characteristics:

Model	MID 30KTL3-X	MID 33KTL3-X	MID 36KTL3-X	MID 40KTL3-X
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	26A*3		26A*4	
PV Isc	32A*3		32A*4	
Nominal output voltage	3W/N/PE 230/400Vac			
Nominal output Frequency	50Hz			
Max.output current	50.5A	55.5A	60.0A	66.6A
Max.output power	30000W	33000W	36000W	40000W
Max.apparent power	33300VA	36600VA	39600VA	44000VA
Power factor range	0.8Leading – 0.8 lagging			
Safety level	Class I			
Ingress Protection	IP 66			
Operation Ambient Temperature	-25°C - +60°C			
Software version	DM1.0			

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# Certificate of Conformity

Certificate Number: CN-PV-200098

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>	MID 17KTL3-X1, MID 20KTL3-X1, MID 22KTL3-X1, MID 25KTL3-X1, MID 30KTL3-X, MID 33KTL3-X, MID 36KTL3-X, MID 40KTL3-X
<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>	200426150GZU-001, 200426150GZU-002

Additional information in Appendix.

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## Signature

**Certification Manager: Grady Ye**

**Date: 31 July 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-200098

Ratings & Principle Characteristics:

Model	MID 17KTL3-X1	MID 20KTL3-X1	MID 22KTL3-X1	MID 25KTL3-X1
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	26A*3			
PV Isc	32A*3			
Nominal output voltage	3W/N/PE, 230/400Vac			
Nominal output Frequency	50/60Hz			
Max.output current	28.5A	33.3A	36.7A	41.9A
Max.output power	17000W	20000W	22000W	25000W
Max.apparent power	18800VA	22000VA	24200VA	27700VA
Power factor range	0.8Leading – 0.8 lagging			
Safety level	Class I			
Ingress Protection	IP 66			
Operation Ambient Temperature	-25°C - +60°C			
Software Version	DM1.0			

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-200098

Ratings & Principle Characteristics:

Model	MID 30KTL3-X	MID 33KTL3-X	MID 36KTL3-X	MID 40KTL3-X
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	26A*3		26A*4	
PV Isc	32A*3		32A*4	
Nominal output voltage	3W/N/PE 230/400Vac			
Nominal output Frequency	50/60Hz			
Max.output current	50.5A	55.5A	60.0A	66.6A
Max.output power	30000W	33000W	36000W	40000W
Max.apparent power	33300VA	36600VA	39600VA	44000VA
Power factor range	0.8Leading – 0.8 lagging			
Safety level	Class I			
Ingress Protection	IP 66			
Operation Ambient Temperature	-25°C - +60°C			
Software version	DM1.0			

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

## ***Attestation Of Conformity***

**CERTIFICATE NO.: SET2020-00207**

**Product:** PV Grid Inverter

**Model:** MID 25KTL3-X

**Applicant:** Shenzhen Growatt New EnergyTechnology 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. **SET2020-00207**, the submitted sample of the above item complies with:

EN 62109-1:2010  
EN 62109-2 :2011

and fulfils testing requirement of the LVD directive 2014/35/EU

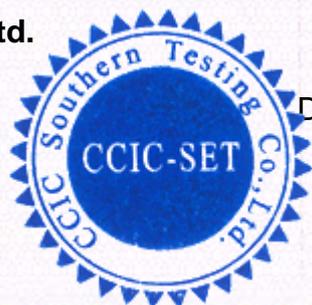


Note: The model MID 10KTL3-X/ MID 12KTL3-X/ MID 15KTL3-X/ MID 17KTL3-X/ MID 20KTL3-X/ MID 22KTL3-X/ MID 25KTL3-X the difference as below: same appearance and structure, the control circuits and power circuit have same schemem, different only in electrical rating and voltage sampling circuit.

Signed for and on behalf of

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

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Kang Qing Yi, Manager



Date of Issue: Jan. 03, 2020

**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-200136

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:	MID 17KTL3-X1, MID 20KTL3-X1, MID 22KTL3-X1, MID 25KTL3-X1, MID 30KTL3-X, MID 33KTL3-X, MID 36KTL3-X, MID 40KTL3-X
Brand Name:	Growatt
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 Issuing Office Name & Address:	Intertek Testing Services Ltd. Shanghai West Area, 2 <sup>nd</sup> Floor, No. 707, Zhangyang Road China (Shanghai) Pilot Free Trade Zone, Shanghai, P. R. China
Test Report Number:	200426139GZU-001 200426139GZU-002

Additional information in Appendix.

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## Signature

**Certification Manager: Grady Ye**

**Date: 20 October 2020**

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-200136

Ratings & Principle Characteristics:

Model	MID 17KTL3-X1	MID 20KTL3-X1	MID 22KTL3-X1	MID 25KTL3-X1
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	26A*3			
PV Isc	32A*3			
Nominal output voltage	3W/N/PE, 230/400Vac			
Nominal output Frequency	50/60Hz			
Max.output current	28.5A	33.3A	36.7A	41.9A
Max.output power	17000W	20000W	22000W	25000W
Max.apparent power	18800VA	22000VA	24200VA	27700VA
Power factor range	0.8Leading – 0.8 lagging			
Safety level	Class I			
Ingress Protection	IP 66			
Operation Ambient Temperature	-25°C - +60°C			
Software Version	DM1.0			

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## APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-200136

Ratings & Principle Characteristics:

Model	MID 30KTL3-X	MID 33KTL3-X	MID 36KTL3-X	MID 40KTL3-X
Max.PV voltage	1100Vdc			
PV voltage range	200V – 1000Vdc			
Max.input current	26A*3		26A*4	
PV Isc	32A*3		32A*4	
Nominal output voltage	3W/N/PE 230/400Vac			
Nominal output Frequency	50/60Hz			
Max.output current	50.5A	55.5A	60.0A	66.6A
Max.output power	30000W	33000W	36000W	40000W
Max.apparent power	33300VA	36600VA	39600VA	44000VA
Power factor range	0.8Leading – 0.8 lagging			
Safety level	Class I			
Ingress Protection	IP 66			
Operation Ambient Temperature	-25°C - +60°C			
Software version	DM1.0			

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