

MAX 50~80KTL3 LV

- 6 / 7 MPPTs
- Smart diagnosis
- High efficiency up to 99%
- Local WIFI configuration
- String monitoring
- AC&DC type II SPD
- AFCI protection
- Data storage up to 25 years
- DC side 2 in 1 connection enabled



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

powering tomorrow
Growatt

www.ginverter.com

Datasheet	MAX 50KTL3 LV	MAX 60KTL3 LV	MAX 70KTL3 LV	MAX 80KTL3 LV
Input data (DC)				
Max. recommended PV power (for module STC)	75000W	90000W	105000W	120000W
Max.DC voltage	1100V			
Start voltage	250V			
Nominal voltage	585V	585V	600V	600V
MPPT voltage range	200V-1000V			
No. of MPP trackers	6	6	7	7
No. of PV strings per MPP tracker	2			
Max. input current per MPP tracker	26A			
Max. short-circuit current per MPP tracker	32A			
Output data (AC)				
AC nominal power	50000W	60000W	70000W	80000W
Max. AC apparent power	55500VA	66600VA	77700VA	88800VA
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	80.5A	96.6A	112.7A	128.8A
Adjustable power factor	0.8leading ...0.8lagging			
THDI	<3%			
AC grid connection type	3W+N+PE			
Efficiency				
Max. efficiency	98.8%	98.8%	99%	99%
European efficiency	98.4%	98.4%	98.5%	98.5%
MPPT efficiency	99.9%			
Protection devices				
DC reverse polarity protection	Yes			
DC switch	Yes			
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	Optional			
Anti-PID function	Optional			
General data				
Dimensions (W / H / D)	860/600/300mm			
Weight	82kg	82kg	86kg	86kg
Operating temperature range	-25°C ... +60°C			
Self-consumption	< 1W			
Topology	Transformerless			
Cooling	Smart air cooling			
Protection degree	IP65			
Relative humidity	0-100%			
Altitude	4000m			
DC connection	H4/MC4(Optional)			
AC connection	Cable gland+OT terminal			
Display	LED/WIFI+APP			
Interfaces: RS485 / USB /WIFI/ RF/GPRS	Yes/Yes /Optional/Optional/Optional			
Warranty: 5 years / 10 years	Yes /Optional			
CE , VDE0126, Greece, EN50438, EN50549, C10/C11, UTE C 15-712, IEC62116, IEC61727, IEC 60068, IEC 61683, CEI0-21, CEI 0-16, N4105, BDEW, DRRG, TOR Erzeuger G98/G99, G100, AS/NZS3100, AS4777, UNE217001, UNE206007, PO12.2, NRS 097-2-1, MEA , PEA , KSC8565				

* The AC voltage range and frequency range may vary depending on specific country grid standard.
All specifications are subject to change without notice.

Certificate of Conformity

Certificate Number: CN-PV-200083

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:	MAX 50KTL3 LV, MAX 60KTL3 LV, MAX 70KTL3 LV, MAX 75KTL3 LV, MAX 80KTL3 LV
Brand Name:	Growatt
Specification/Standard:	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
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:	200109129GZU-001, Revision 1: 14 Jul 2020

Additional information in Appendix.

Signature

Certification Manager: Grady Ye

Date: 17 July 2020

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-200083.

Ratings & Principle Characteristics:

Maximum d.c. input voltage: 1100 Vdc

Input voltage range: 200-1000 Vdc

MPPT voltage range (full Load): 500-850 V (for MAX 50KTL3 LV); 520-850 V (for MAX 60KTL3 LV); 600-850 V (for MAX 70KTL3 LV, MAX 75KTL3 LV, MAX 80KTL3 LV);

Max. input current: 6×26A (for MAX 50KTL3 LV, MAX 60KTL3 LV); 7×26A (for MAX 70KTL3 LV, MAX 75KTL3 LV, MAX 80KTL3 LV);

PV Isc: 6×32A (for MAX 50KTL3 LV, MAX 60KTL3 LV); 7×32A (for MAX 70KTL3 LV, MAX 75KTL3 LV, MAX 80KTL3 LV);

Nominal output voltage: 3W/N/PE 230V/400Vac

Max. output current: 3×80.5 A (for MAX 50KTL3 LV); 3×96.6A (for MAX 60KTL3 LV); 3×112.7 A (for MAX 70KTL3 LV); 3×120.8 A (for MAX 75KTL3 LV); 3×128.8A (for MAX 80KTL3 LV)

Nominal frequency: 50 Hz

Max. output power: 55500VA (for MAX 50KTL3 LV); 66600VA (for MAX 60KTL3 LV); 77700VA (for MAX 70KTL3 LV); 83300VA (for MAX 75KTL3 LV); 88800 VA (for MAX 80KTL3 LV)

Ingress protection: IP65

Operating temperature range: -25 ~ +60°C

Software Version: TI1.0

Certificate of Conformity

Certificate Number: CN-PV-190083

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:	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:	PV Grid inverter
Ratings & Principle Characteristics:	See Appendix to Certificate of Conformity
Models:	MAX 50KTL3 LV, MAX 60KTL3 LV, MAX 70KTL3 LV, MAX 75KTL3 LV, MAX 80KTL3 LV, MAX 60KTL3 MV, MAX 70KTL3 MV, MAX 80KTL3 MV, MAX 90KTL3 MV, MAX 100KTL3 MV
Brand Name:	Growatt
Tested according to:	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 2/F (West Side), No. 707, Zhangyang Road, Free Trade Experimental Area, Shanghai, P. R. China
Test Reports No:	191120148GZU-004, 191120148GZU-005

Additional information in Appendix.

Signature

Certification Manager: Grady Ye

Date: 9 December 2019

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-190083.

Ratings & Principle Characteristics:

Model	MAX 50KTL3 LV	MAX 60KTL3 LV	MAX 70KTL3 LV	MAX 75KTL3 LV
Max. PV voltage	1100 d.c.V			
PV voltage range	200-1000 d.c.V			
PV Isc	32 d.c.A*6		32 d.c.A*7	
Max. input current	26 d.c.A*6		26 d.c.A*7	
Max. output power	50000W	60000W	70000W	75000W
Max. apparent power	55500VA	66600VA	77700VA	83300VA
Nominal output voltage	3W/N/PE 230/400 a.c.V			
Max. output current	80.5 a.c.A	96.6 a.c.A	112.7 a.c.A	120.8 a.c.A
Nominal output frequency	50/60Hz			
Power factor range	0.8Leading ~ 0.8Lagging			
Safety level	Class I			
Ingress Protection	IP65			
Operation Ambient Temperature	-25°C - +60°C			
Software Version	TI1.0			

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APPENDIX: Certificate of Conformity

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Ratings & Principle Characteristics:

Model	MAX 80KTL3 LV	MAX 60KTL3 MV	MAX 70KTL3 MV	MAX 80KTL3 MV
Max. PV voltage	1100 d.c.V			
PV voltage range	200-1000 d.c.V			
PV Isc	32 d.c.A*7	32 d.c.A*6	32 d.c.A*7	
Max. input current	26 d.c.A*7	26 d.c.A*6	26 d.c.A*7	
Max. output power	80000W	60000W	70000W	80000W
Max. apparent power	88800VA	66600VA	77700VA	88800VA
Nominal output voltage	3W/N/PE 230/400 a.c.V	3W/N/PE or 3W+PE 277/480 a.c.V		
Max. output current	128.8 a.c.A	80.2 a.c.A	93.6 a.c.A	107.0 a.c.A
Nominal output frequency	50/60Hz			
Power factor range	0.8Leading ~ 0.8Lagging			
Safety level	Class I			
Ingress Protection	IP65			
Operation Ambient Temperature	-25°C - +60°C			
Software Version	TI1.0			

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-190083.

Ratings & Principle Characteristics:

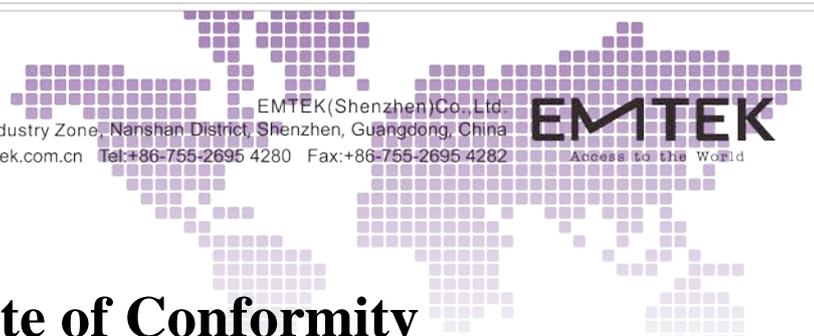
Model	MAX 90KTL3 MV	MAX 100KTL3 MV
Max. PV voltage	1100 d.c.V	
PV voltage range	200-1000 d.c.V	
PV Isc	32 d.c.A*7	
Max. input current	26 d.c.A*7	
Max. output power	90000W	100000W
Max. apparent power	99900VA	111000VA
Nominal output voltage	3W+PE 288/500 a.c.V	
Max. output current	115.7 a.c.A	128.6 a.c.A
Nominal output frequency	50/60Hz	
Power factor range	0.8Leading ~ 0.8Lagging	
Safety level	Class I	
Ingress Protection	IP65	
Operation Ambient Temperature	-25°C - +60°C	
Software Version	TI1.0	

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Certificate of Conformity

NO.: ES191112035S

The following product has been tested by us with the listed standards and found in conformity with the council LVD directive 2014/35/EU. It is possible to use CE marking to demonstrate the conformity with this LVD 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 : MAX 80KTL3 LV, MAX 70KTL3 LV, MAX 80KTL3 MV, MAX 90KTL3 MV, MAX 100KTL3 MV, MAX 70KTL3 MV, MAX 60KTL3 MV, MAX 50KTL3 LV, MAX 60KTL3 LV, MAX 75KTL3 LV

Technical Data : Refer to test report

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



(Manager)

Nov. 29, 2019

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-190078

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:	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:	PV Grid inverter
Ratings & Principle Characteristics:	See Appendix to Certificate of Conformity
Models:	MAX 50KTL3 LV, MAX 60KTL3 LV, MAX 70KTL3 LV, MAX 75KTL3 LV, MAX 80KTL3 LV, MAX 60KTL3 MV, MAX 70KTL3 MV, MAX 80KTL3 MV
Brand Name:	Growatt
Tested according to:	DIN V VDE V0126-1-1:2013.08 Automatic disconnection device between a generator and the public low-voltage grid Type approved for Greece
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 Reports No:	191120148GZU-003

Additional information in Appendix.

Signature

Certification Manager: Grady Ye

Date: 04 December 2019

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-190078.

Ratings & Principle Characteristics:

Model	MAX 80KTL3 LV	MAX 60KTL3 MV	MAX 70KTL3 MV	MAX 80KTL3 MV
Max. PV voltage	1100 d.c.V			
PV voltage range	200-1000 d.c.V			
PV Isc	32 d.c.A*7	32 d.c.A*6	32 d.c.A*7	
Max. input current	26 d.c.A*7	26 d.c.A*6	26 d.c.A*7	
Max. output power	80000W	60000W	70000W	80000W
Max. apparent power	88800VA	66600VA	77700VA	88800VA
Nominal output voltage	3W/N/PE 230/400 a.c.V	3W/N/PE or 3W+PE 277/480 a.c.V		
Max. output current	128.8 a.c.A	80.2 a.c.A	93.6 a.c.A	107.0 a.c.A
Nominal output frequency	50Hz			
Power factor range	0.8Leading ~ 0.8Lagging			
Safety level	Class I			
Ingress Protection	IP65			
Operation Ambient Temperature	-25°C - +60°C			
Software Version	TI1.0			

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APPENDIX: Certificate of Conformity

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Ratings & Principle Characteristics:

Model	MAX 50KTL3 LV	MAX 60KTL3 LV	MAX 70KTL3 LV	MAX 75KTL3 LV
Max. PV voltage	1100 d.c.V			
PV voltage range	200-1000 d.c.V			
PV Isc	32 d.c.A*6		32 d.c.A*7	
Max. input current	26 d.c.A*6		26 d.c.A*7	
Max. output power	50000W	60000W	70000W	75000W
Max. apparent power	55500VA	66600VA	77700VA	83300VA
Nominal output voltage	3W/N/PE 230/400 a.c.V			
Max. output current	80.5 a.c.A	96.6 a.c.A	112.7 a.c.A	120.8 a.c.A
Nominal output frequency	50Hz			
Power factor range	0.8Leading ~ 0.8Lagging			
Safety level	Class I			
Ingress Protection	IP65			
Operation Ambient Temperature	-25°C - +60°C			
Software Version	TI1.0			

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