



Growatt
powering tomorrow

GROWATT USA INC.

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P₀₅

About Growatt

P₀₇

Certification

P₀₈

With World-class
Components Suppliers

P₀₉



Single Phase Inverter-US

P₁₇



Three Phase Inverter-US

P₂₃



Monitoring System

P₂₉

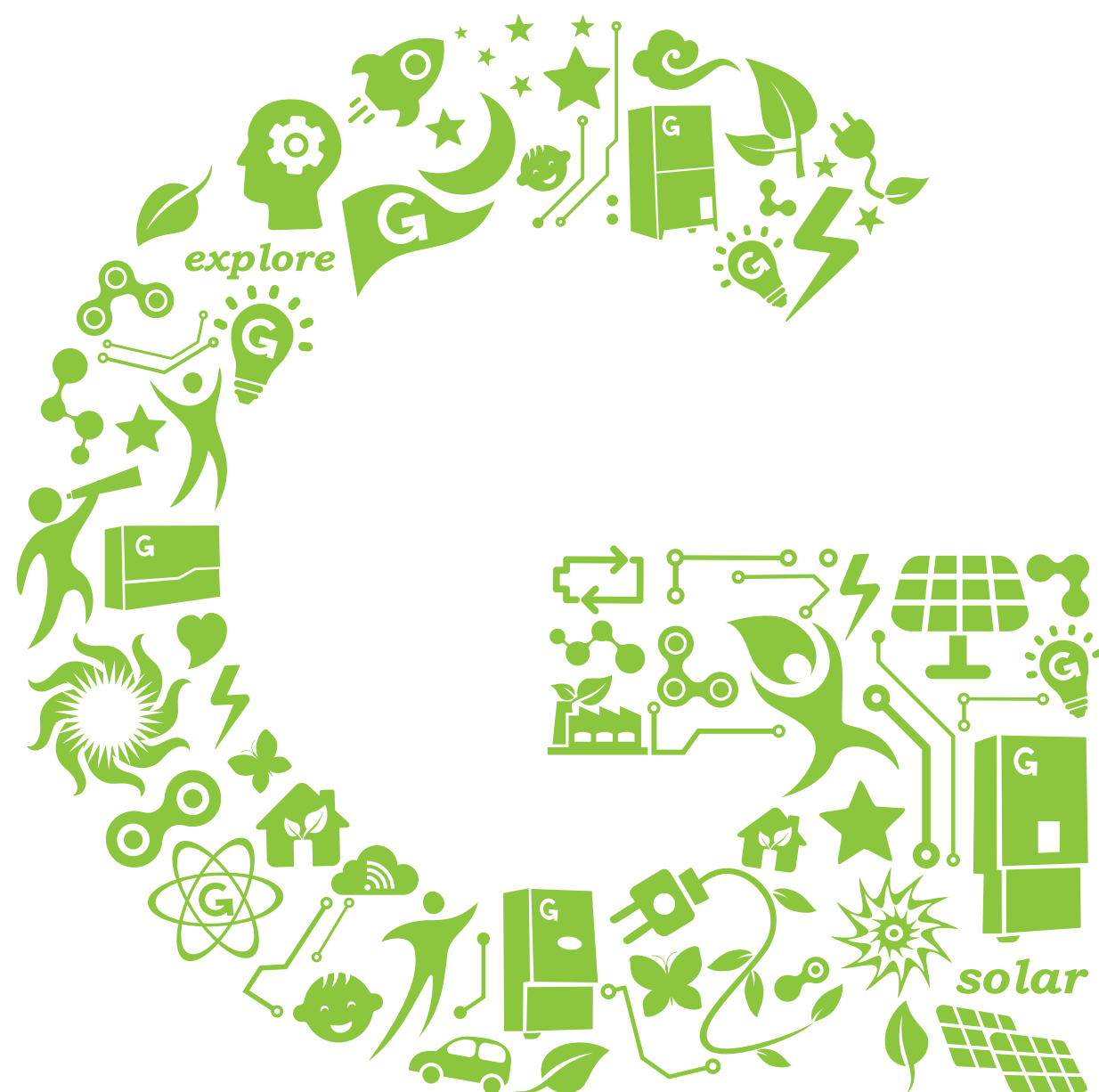


Project List

P₃₁



Service



A New Milestone for Photovoltaic

As the CEO of Growatt New Energy, I am very honored to recommend our excellent team, our high-efficiency and cost-effective inverters, energy storage products, as well as smart energy management system and other supporting service to all the partners.

Known by all the customers, Growatt is a new energy company based on an R&D team with 10 years experience in PV and power industry. Growatt team has always been committed to more cost-effective new energy product design and maintains sustainable progress. The technology and product performance has been assessed A level by world first-class certification company and EPC company.

Growatt has been engaged in solar photovoltaic inverter and energy storage system since 2010, and until now its products have covered over 100 countries worldwide, quickly growing into the world leading supplier of cost-effective inverters with high efficiency.

Growatt has a full range of inverters from 1kW to 2.52MW, and flexible energy storage solutions, as well as smart energy management system, which are well suited to residential,

commercial and large-scale power plants applications.

In residential solar application, Growatt provides high efficiency and compact inverters and storage products to customers with a simple and intelligent user experience. Meanwhile, it has won a more extensive global market coverage, and stands out from other manufacturers.

In commercial and large-scale power station applications, more stable and effective inverters together with smart energy management system also give customers more cost competitive advantage.

With the efficient products, Growatt offers every customer comprehensive pre-sales and after-sales service, to ensure the optimal products for customized demands. For customers, Growatt is more than just a supplier, but a more reliable partner.



About Growatt

Growatt New Energy Technology Co., Ltd was established on May 2010, a professional new energy company focusing on photovoltaic inverters, energy storage products, as well as smart energy monitoring and management system. Until now, Growatt total shipment is over 670,000, and covers more than 100 countries in Europe, America, Africa, and Asia Pacific, famous as a world leading manufacturer of cost-effective photovoltaic inverters with high efficiency.

Our Products

Growatt offers a full range of PV products with leading-edge technology, including 1-50kW string inverters, 100kW-2.52MW central inverters, storage solutions, smart energy monitoring and managing system, which are completely applicable for residential, industrial and commercial rooftop, large-scale ground plants and storage system.

Our Achievement

At the start of 2012, Sequoia Capital and China Merchants invested in Growatt strategically, which is the basis for the high and stable development of Growatt. With the excellent performance in both domestic and international market, Growatt has been awarded with some honorable titles, like “2012 Fastest Growing Company” “2013 Top 10 Enterprises of Innovation in China” “Most Competitive PV Inverter Company in China” “2014 Top 10 String Inverter Manufactures in China” “2015 Top 10 Most Popular PV Inverter Company in China” “2016 The No.1 Residential Inverter Provider in China” etc. Growatt has been the largest inverter exporter for 7 years, being the most popular Chinese inverter supplier in global market.

Growatt, with big steps, is developing to be the Growatt Group, which will consist of 7 business departments, i.e. 1-50kW string inverters, 100kW-2.52MW central inverters, energy storage products, smart energy monitoring and managing system, electric vehicle charger, solar system EPC, and investment business dept., and determined to be the leader of Chinese user-side smart energy solution provider.

Our R&D and Service Team

With an R&D team more than 100 engineers, 40% of the staff, who has been deeply engaged in the photovoltaic industry for 10 years, thanks to the expertise of its engineers Growatt is currently holding more than 50 patents, Growatt takes the mission to increase the products availability and efficiency, putting continuous innovation to make Growatt products easier for installation and operation, and more cost-effective for solar plant construction.

Other than the R&D team, building an elite service team is Growatt’s another goal. In Growatt, service is not only the basic principle, but also blends into the hearts of the staff, and reflects in the daily work of everyone. In order to improve the service system worldwide, Growatt has established branch offices in Frankfurt, Sydney, Los Angeles, Oxford, Chennai, Bangkok, Shenzhen, Hongkong, Beijing and Suzhou.

Certification

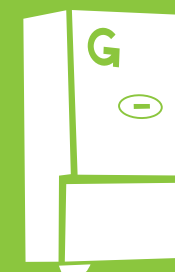


With World-class
Components Suppliers

Growatt chooses world-class suppliers to ensure the high quality of its products. With top-class partners Growatt provides inverters with high quality and efficiency to the whole world.



powering tomorrow
Growatt



Single Phase Inverter-US

1500-US	4000MTLP-US	8000MTLP-US
2000-US	5000MTLP-US	9000MTLP-US
3000-US	6000MTLP-US	10000MTLP-US
	7000MTLP-US	
	7600MTLP-US	

Product Model

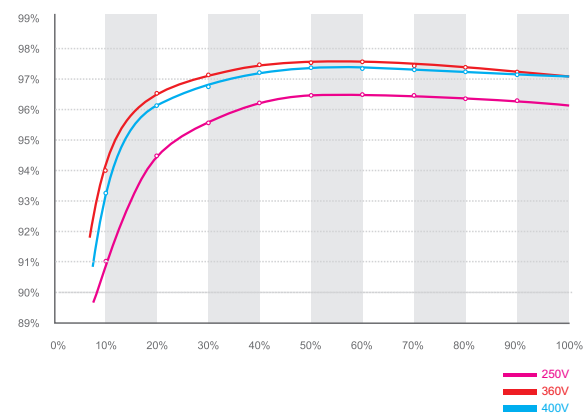
Growatt 1500-US | 2000-US
3000-US



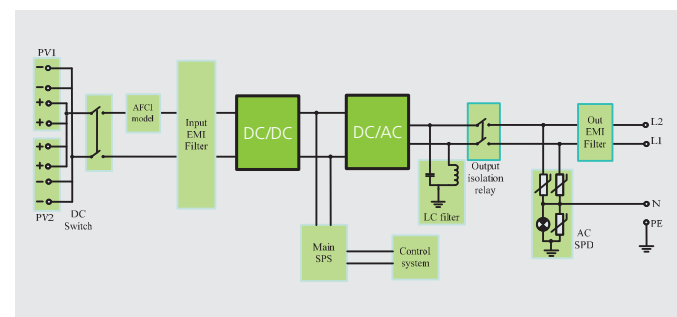
Leading - edge Technology

- Maximum efficiency of 97% and wide input voltage range
- Internal DC switch
- Transformerless GT topology
- Compact design
- MTL - String
- Ethernet / RF technology / WiFi
- Sound control
- Easy installation

Growatt 3000-US efficiency



Growatt 1.5-3K US topology



Datasheet	Growatt 1500-US	Growatt 2000-US	Growatt 3000-US
Input Data			
Max. DC power	1800W	2300W	3200W
Max. recommend PV power	2000W	2500W	3500W
Max. DC voltage	450V	500V	500V
Start voltage	150V	150V	150V
DC nominal voltage	360V	360V	360V
PV voltage range	100V - 450V	100V - 500V	100V - 500V
MPP voltage range	120V - 400V	120V - 450V	120V - 450V
Number of independent MPP trackers/strings per MPP tracker	1 / 1	1 / 2	1 / 2
Max. input current of the MPP tracker	12A	14A	17A
Output (AC)			
Rated AC output power	1500W@208Vac 1650W@240Vac	1800W@208Vac 2000W@240Vac	2500W@208Vac 2800W@240Vac
AC nominal voltage; range	Default:240V single phase, optional:208 single phase; 183-228@208V, 211-264V@240V		
AC grid frequency; range	60Hz; 59.3-60.5Hz	60Hz; 59.3-60.5Hz	60Hz; 59.3-60.5Hz
Max. output current	8A / 7.8A	9.7A / 9.4A	15A / 14.2A
Phase shift (cosφ)	1	1	1
THDI	<3%	<3%	<3%
AC connection	Single phase	Single phase	Single phase
Efficiency			
Max. efficiency	97%	97%	97%
CEC efficiency	96%	96.5%	96.5%
MPPT efficiency	99.5%	99.5%	99.5%
Protection Devices			
DC reverse polarity protection	yes	yes	yes
DC switch for each MPPT	yes	yes	yes
Output over current protection	yes	yes	yes
Output overvoltage protection-varistor	yes	yes	yes
Ground fault monitoring	yes	yes	yes
Grid monitoring	yes	yes	yes
Integrated all-pole sensitive leakage current monitoring unit	yes	yes	yes
AFCI compliant to UL 1699B	yes	yes	yes
General Data			
Dimensions (W / H / D) in inch	14.1/18.3/6.5	14.1/18.3/6.5	14.1/18.3/6.5
Weight	14.6kg/32.2lb	15.1kg/33.3lb	15.9kg/35.0lb
Operating temperature range	-25...+60℃ / (-13...+ 140℉)	-25...+60℃ / (-13...+ 140℉)	-25...+60℃ / (-13...+ 140℉)
Full load temperature range	-25...+45℃ / (-13...+ 113℉)	-25...+45℃ / (-13...+ 113℉)	-25...+45℃ / (-13...+ 113℉)
Noise emission (typical)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)
Self-Consumption (night)	< 0.5 W	< 0.5 W	< 0.5 W
Topology	Transformerless	Transformerless	Transformerless
Cooling concept	Natural cooling	Natural cooling	Natural cooling
Enclosure	NEMA 3R	NEMA 3R	NEMA 3R
Altitude	2000m without derating	2000m without derating	2000m without derating
Humidity	100%	100%	100%
Features			
DC connection	Screw terminal	Screw terminal	Screw terminal
AC connection	Screw terminal	Screw terminal	Screw terminal
Display	LCD	LCD	LCD
Interfaces: RS232/RS485/RF/Ethernet/WiFi/Zigbee/Cellular	yes/yes/opt/opt/opt/opt/opt	yes/yes/opt/opt/opt/opt/opt	yes/yes/opt/opt/opt/opt/opt
Revenue grade data,ANSI C12.1	opt	opt	opt
Warranty: 5 years / 10 years / 15 years	yes / yes / opt	yes / yes / opt	yes / yes / opt
Certificates and Approvals			
UL1741,UL1998 ,IEEE 1547, CSA C22.2 No.107.1-1,FCC Part15(Class A&B),UL1699B			

Product Model

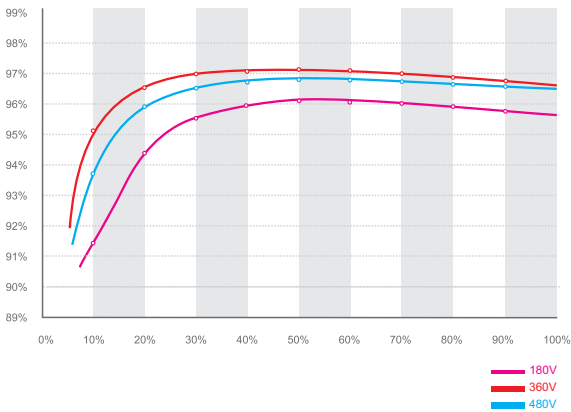
Growatt 4000MTLP-US | 5000MTLP-US
6000MTLP-US | 7000MTLP-US
7600MTLP-US



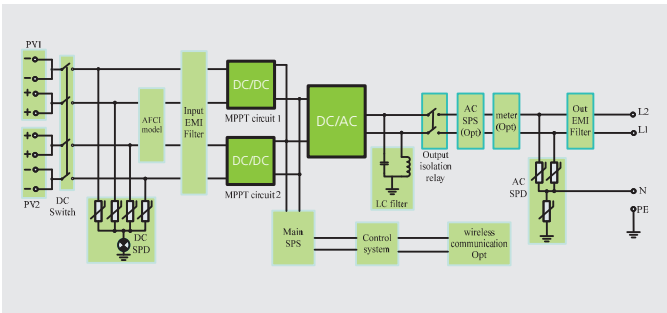
Leading - edge Technology

- Maximum efficiency of 97.5% and wide input voltage range
- Internal DC switch
- Transformerless GT topology
- Compact design
- Multi MPP tracker
- Sound control
- Easy installation
- MTL - String
- Ethernet / RF technology / WiFi
- Reactive power control

Growatt 7600MTLP-US efficiency



Growatt 4-7.6K MTLT-US topology



Datasheet Growatt 4000MTLP-US Growatt 5000MTLP-US Growatt 6000MTLP-US Growatt 7000MTLP-US Growatt 7600MTLP-US

Input Data					
Max. power per MPPT	4000/4000W	5000/5000W	6000/6000W	7000/4800W	7600/4800W
Max. usable input current per MPPT	18A/18A	18A/18A	18A/18A	20A/10A	20A/10A
Max. short circuit input current per inverter	42A	47A	56A	47A	47A
Startup voltage	150V	150V	150V	150V	150V
Max. voltage	600V	600V	600V	600V	600V
DC nominal voltage MPPT tracker	360V	360V	360V	360V	360V
DC voltage range	100-600V	100-600V	100-600V	100-600V	100-600V
MPP operating voltage range	120-500V	120-500V	120-500V	120-500V	120-500V
Number of MPPT	2	2	2	2	2
Inputs per MPPT	2/2	2/2	2/2	2/1	2/1
Output Data					
Nominal output power	4000W	5000W	6000W	7000W	7600W
Max. Continuous output current	16.7A	21A	25A	29A	31.7A
Max. over current protection device	21A	26A	31A	36A	40A
Operating frequency/range	60/59.5~60.5	60/59.5~60.5	60/59.5~60.5	60/59.5~60.5	60/59.5~60.5
Ambient operating temperature range(full load)	-25℃~45℃ (-13...+ 113℉)				
AC nominal voltage; range	Default:240V split-phase, optional:208V & 240V & 277V single phase , 183-228@208V 211-264V@240V 244-305@277V				
Phase shift (cosφ)	Default: 0.99, opt Reactive power adjust / range:-0.85~+0.85				
THDI	<3%	<3%	<3%	<3%	<3%
Efficiency					
Max.efficiency	97.2%	97.5%	97.5%	97.4%	97.3%
CEC weighted efficiency	96%	96.5%	96.5%	97%	97%
MPPT efficiency	99.5%	99.5%	99.5%	99.5%	99.5%
General Data					
Integrated DC disconnect	yes	yes	yes	yes	yes
DC reverse polarity protection	yes	yes	yes	yes	yes
Output overvoltage protection-varistor	yes	yes	yes	yes	yes
Output over current protection	yes	yes	yes	yes	yes
Ground fault monitoring	yes	yes	yes	yes	yes
Grid monitoring	yes	yes	yes	yes	yes
Integrated all - pole sensitive leakage current monitoring unit	yes	yes	yes	yes	yes
Compliant to UL 1699B	yes	yes	yes	yes	yes
Features					
Dimensions(W* H*D)	28.74*15.75*8.46in	28.74*15.75*8.46in	28.74*15.75*8.46in	28.74*15.75*8.46in	28.74*15.75*8.46in
Weight	31.5kg/69.4Lb	31.5kg/69.4Lb	32kg/70.5Lb	32kg/70.5Lb	32kg/70.5Lb
Enclosure	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X
Cooling concept	natural cooling	natural cooling	natural cooling	natural cooling	natural cooling
Topology	Transformer-less	Transformer-less	Transformer-less	Transformer-less	Transformer-less
Relative humidity	100%	100%	100%	100%	100%
Altitude	Up to 2000m(6560ft) without power de-rating				
Noise emission (typical)	≤ 25 dB(A)	≤ 25 dB(A)	≤ 25 dB(A)	≤ 25 dB(A)	≤ 25 dB(A)
Consumption: standby	<5W	<5W	<5W	<5W	<5W
Revenue Grade Meter	opt	opt	opt	opt	opt
Display	LCD	LCD	LCD	LCD	LCD
RS485/ShineLink RF/Wifi/Ethernet/Zigbee/ Cellular	yes/opt/opt/opt/opt/opt	yes/opt/opt/opt/opt/opt	yes/opt/opt/opt/opt/opt	yes/opt/opt/opt/opt/opt	yes/opt/opt/opt/opt/opt
Warranty: 5years/10years/15years	yes/yes/opt	yes/yes/opt	yes/yes/opt	yes/yes/opt	yes/yes/opt
Certificates and Approvals					
UL1741,UL1998 ,IEEE 1547, CSA C22.2 No.107.1-1,FCC Part15(Class A&B),UL1699B					

Product Model

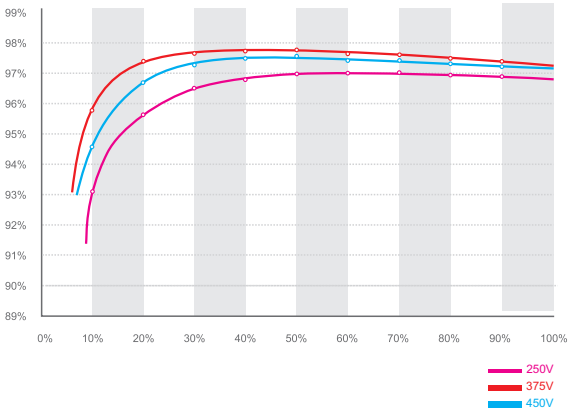
Growatt 8000MTLP-US | 9000MTLP-US
10000MTLP-US



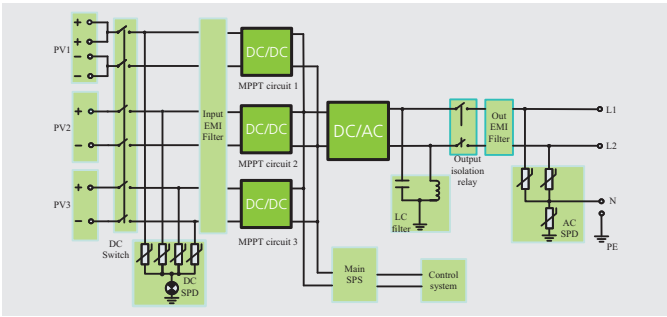
Leading - edge Technology

- Maximum efficiency of 97.8% and wide input voltage range
- Internal DC switch
- Transformerless GT topology
- Compact design
- Multi MPP tracker
- Sound control
- Easy installation
- MTL - String
- Ethernet / RF technology / WiFi

Growatt 10000MTLP-US efficiency



Growatt 8-10K MTLT-US topology



Datasheet	Growatt 8000MTLP-US	Growatt 9000MTLP-US	Growatt 10000MTLP-US
Input Data			
Max. input power per MPP tracker	3250/3250/6500W	3250/3250/6500W	3250/3250/6500W
Max. DC voltage	600V	600V	600V
Start voltage	150V	150V	150V
DC rated voltage	360V	360V	360V
PV voltage range	100-600V	100-600V	100-600V
MPP voltage range	120-500V	120-500V	120-500V
Full load DC voltage range per MPP tracker	315-480V	315-480V	315-480V
Number of MPP trackers	3	3	3
strings per MPP tracker	1/1/2	1/1/2	1/1/2
Max. operating current per MPP tracker	9.5/9.5/19A	9.5/9.5/19A	9.5/9.5/19A
Output (AC)			
Nominal AC output power	8000W	9000W	10000W
Max. output current	33.5A	37.5A	42A
AC nominal voltage/range	Default:240V split-phase, optional:208V & 240V single phase , 183-229@208V 211-264V@240V		
AC grid frequency; range	60 Hz / 59.3~60.5 Hz	60 Hz / 59.3~60.5 Hz	60 Hz / 59.3~60.5 Hz
Power factor	1	1	1
THDI	<3%	<3%	<3%
AC connection	single phase	single phase	single phase
Efficiency			
Max. efficiency	97.8%	97.8%	97.8%
CEC-Weighted Efficiency	97%	97%	97%
MPPT efficiency	99.5%	99.5%	99.5%
Protection Devices			
DC reverse-polarity protection	yes	yes	yes
Input over voltage protection-Varistor	opt	opt	opt
Arc detection(AFCI)	yes	yes	yes
DC insulation measure	yes	yes	yes
AC short circuit protection	yes	yes	yes
Output over voltage protection-Varistor	yes	yes	yes
General Data			
Dimensions (W / H / D)	14/27.3/8.3inch (355/694/210 mm)	14/27.3/8.3inch (355/694/210 mm)	14/27.3/8.3inch (355/694/210 mm)
Weight	30kg/66lb	30kg/66lb	30kg/66lb
Operating temperature range	-25..+60℃/(-13...+ 140°F)	-25..+60℃/(-13...+ 140°F)	-25..+60℃/(-13...+ 140°F)
Noise emission	< 25dB	< 25dB	< 25dB
Relative Humidity	0~100%	0~100%	0~100%
Altitude	2000m without derating	2000m without derating	2000m without derating
Consumption: operating (standby) / night	<5W / <0.5W	<5W / <0.5W	<5W / <0.5W
Topology	Transformerless	Transformerless	Transformerless
Cooling concept	natural cooling	natural cooling	natural cooling
Enclosure	NEMA 4X	NEMA 4X	NEMA 4X
Features			
Display	LCD	LCD	LCD
Interfaces: RS485/ShineLink RF/Wifi/Ethernet/Zigbee/Cellular	yes/opt/opt/opt/opt/opt	yes/opt/opt/opt/opt/opt	yes/opt/opt/opt/opt/opt
Warranty: 5 years/10 years/15 years	yes/yes/opt	yes/yes/opt	yes/yes/opt
Certificates and Approvals			
UL1741,UL1998,IEEE1547,FCC part 15(class B),CSA C22.2 No.107.1,UL1699B(type 1)			

10000TL3-US	33000TL3-US
12000TL3-US	36000TL3-US
18000TL3-US	40000TL3-US
20000TL3-US	



Product Model

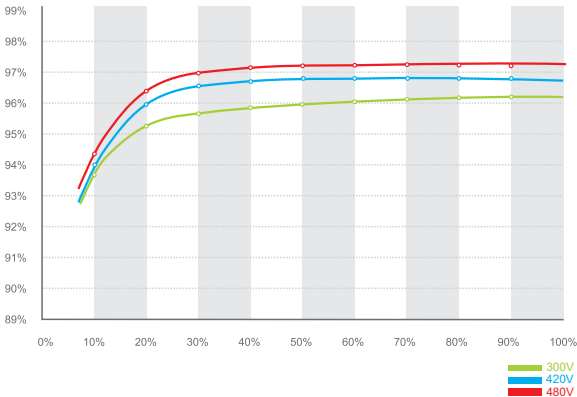
Growatt 10000TL3-US | 12000TL3-US
18000TL3-US | 20000TL3-US



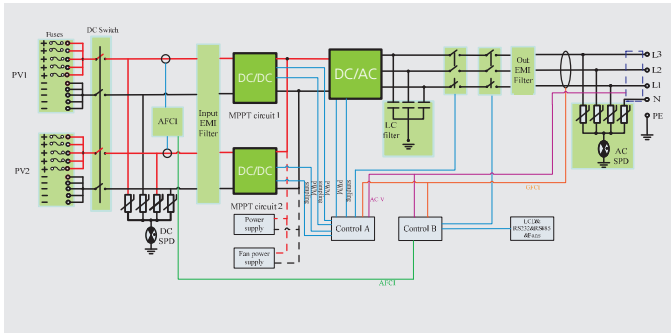
Leading - edge Technology

- Special for commercial plant application
- Dual independent MPP tracking and advanced MPPT algorithms lead to optimal energy harvesting
- Consistent and stable performance across entire input voltage and output power range
- Integrated DC disconnect switch
- High efficiency of 97.5% delivery more energy
- Ethernet / RF technology / WiFi
- Easy installation and maintenance procedure
- Innovative device designed and Intelligent applications
- Comprehensive protection for IGBTs, overvoltage, short-circuit, overload, overheat, etc
- Flexible system design with safety fuse module, lightning protection module and AFCI module

Growatt 20000TL3-US efficiency



Growatt 10-20K TL3-US topology



Datasheet

Growatt 10000TL3-US

Growatt 12000TL3-US

Growatt 18000TL3-US

Growatt 20000TL3-US

Input Data

Max. recommended PV power	12500W	15000W	21600W	24000W
Max. DC power	10500W	12500W	18750W	20850W
Max. DC voltage	600V	600V	600V	600V
Start voltage	120V	120V	120V	120V
DC nominal voltage	375V	375V	375V	375V
PV voltage range	80V - 600V	80V - 600V	80V - 600V	80V - 600V
MPP voltage range (Full load)	250V - 600V	250V - 600V	250V - 600V	250V - 600V
Number of independent MPP trackers/strings per MPP tracker	2 / 3	2 / 3	2 / 5	2 / 5
Max. input current of MPP Tracker A / Tracker B	21A / 21A	25A / 25A	38A / 38A	42A / 42A
Max. input short circuit current	32A / 32A	32A / 32A	50A / 50A	50A / 50A

Output (AC)

Rated AC output power	10000W	12000W	18000W	20000W
Rated AC voltage	480V	480V	480V	480V
AC voltage range	422-528VAC	422-528VAC	422-528VAC	422-528VAC
AC grid frequency; range	60 Hz;59.3-60.5 Hz	60 Hz;59.3-60.5 Hz	60 Hz;59.3-60.5 Hz	60 Hz;59.3-60.5 Hz
Max. output current(cos φ=1)	12A	14.5A	21.5A	24A
Power factor (cos φ)	>0.99 (0.9Leading - 0.9Lagging)	>0.99 (0.9Leading - 0.9Lagging)	>0.99 (0.9Leading - 0.9Lagging)	>0.99 (0.9Leading - 0.9Lagging)
Harmonics	<3%	<3%	<3%	<3%
Grid connection type	3/N/E	3/N/E	3/N/E	3/N/E

Efficiency

Max.efficiency	97%	97%	97.5%	97.5%
CEC-Weighted Efficiency	95.5%	95.5%	96%	96.5%
MPPT efficiency	99.5%	99.5%	99.5%	99.5%

Protection Devices

DC switch for each MPP tracker	yes	yes	yes	yes
DC reverse-polarity protection	yes	yes	yes	yes
DC/AC over voltage protection-Varistor	yes	yes	yes	yes
DC/AC over voltage protection -DIN rail surge arrester(Optional)	Class II	Class II	Class II	Class II
DC insulation measure	yes	yes	yes	yes
AC short circuit protection	yes	yes	yes	yes
AFCI compliant to UL 1699B	yes	yes	yes	yes

General Data

Dimensions (W / H / D) in inch	20.9/27.7/9.7	20.9/27.7/9.7	25.6/29.1/9.7	25.6/29.1/9.7
Weight	46kg/101.4lb	46kg/101.4lb	63kg/138.9lb	63kg/138.9lb
Operating temperature range	-25..+60℃/(-13...+ 140℉)	-25..+60℃/(-13...+ 140℉)	-25..+60℃/(-13...+ 140℉)	-25..+60℃/(-13...+ 140℉)
Full load temperature range	-25..+45℃/(-13...+ 113℉)	-25..+45℃/(-13...+ 113℉)	-25..+45℃/(-13...+ 113℉)	-25..+45℃/(-13...+ 113℉)
Noise emission	≤50dB(A)	≤50dB(A)	≤50dB(A)	≤50dB(A)
Self-Consumption (night)	< 3 W	< 3 W	< 3 W	< 3 W
Topology	Transformerless	Transformerless	Transformerless	Transformerless
Cooling concept	Fan Cooling	Fan Cooling	Fan Cooling	Fan Cooling
Enclosure	NEMA 3R	NEMA 3R	NEMA 3R	NEMA 3R
Altitude	2000m without derating	2000m without derating	2000m without derating	2000m without derating
Relative Humidity	0~100%	0~100%	0~100%	0~100%

Features

Display	Graphic	Graphic	Graphic	Graphic
Interfaces: RS232/RS485/ Ethernet/RF/WiFi	yes / yes / opt / opt / opt	yes / yes / opt / opt / opt	yes / yes / opt / opt / opt	yes / yes / opt / opt / opt
Warranty: 5years / 10years / 15years	yes / yes / opt	yes / yes / opt	yes / yes / opt	yes / yes / opt

Certificates and Approvals

UL1741,UL1998 ,IEEE 1547, CSA C22.2 No.107.1-1,FCC Part15(Class A&B),UL1699B



Product Model

Growatt 33000TL3-US | 36000TL3-US
40000TL3-US

Leading - edge Technology

Excellent Performance

- Maximum efficiency of 98.8%, CEC efficiency of 98.5%
- 1000VDC input special for large-scale plant application
- Dual independent MPPT and advanced MPPT algorithms
- lead to optimal energy harvesting
- Consistent and stable performance across entire input voltage and output power range

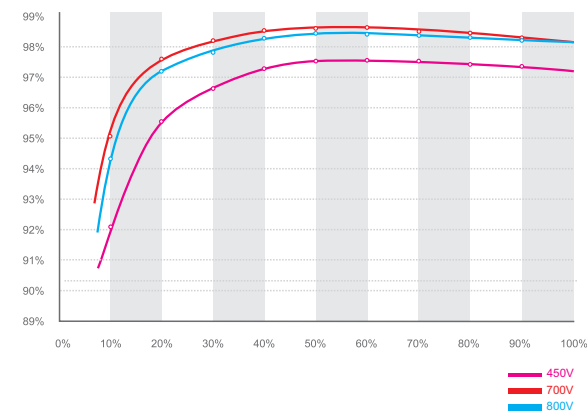
High Reliability

- String level monitoring
- AC power supply enable remote monitoring,upgrading
- Advanced thermal design, with variable speed fans
- Compact design, easy installation and maintenance procedure
- Comprehensive protection for IGBTs, overvoltage, short-circuit,overload, overheat, etc
- Anti-PID,AC/DC SPD,PV+/-Fuse
- UL 1699B and Rule 21 Compliant

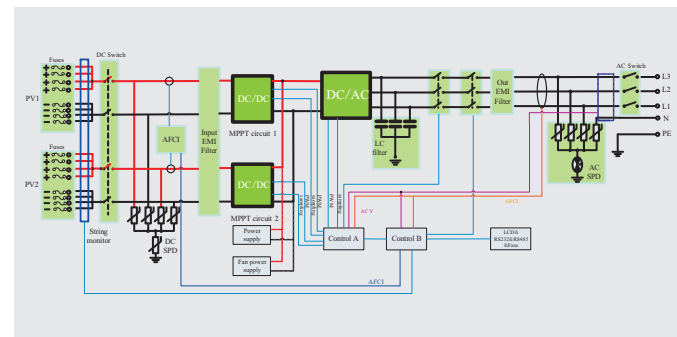
Flexible Design

- Maximum DC/AC ratio to 1.5
- 0-90 degree installation angle
- 50 units in parallel per tranformer
- Seperate wiring box design
- Integrated DC, AC disconnects
- Wide MPPT range for flexible string sizing

Growatt 33000TL3-US efficiency



Growatt 33-40K TL3-US topology



Datasheet	Growatt 33000 TL3-US	Growatt 36000 TL3-US	Growatt 40000 TL3-US
Input Data (DC)			
Max. usable DC power	33700W	36750W	40800W
Max. DC voltage	1000V	1000V	1000V
Start voltage	250V	250V	250V
DC nominal voltage	695V	695V	695V
PV voltage range	200V-1000V	200V-1000V	200V-1000V
MPP voltage range (Full load)	480V-800V	520V-800V	570V-800V
Max. input current of the MPP tracker A/tracker B	36A/36A	36A/36A	36A/36A
Max. input short circuit current of the MPP tracker A/tracker B	45A/45A	45A/45A	45A/45A
Number of independent MPP trackers/ strings per MPP tracker	2/4	2/4	2/4
Output (AC)			
Nominal output power	33000W/36660VA	36000W/40000VA	40000W/40000VA
Nominal AC voltage	480V	480V	480V
AC voltage range	422-528VAC	422-528VAC	422-528VAC
Nominal AC grid frequency	60 Hz	60 Hz	60 Hz
AC grid frequency range	59.3-60.5 Hz	59.3-60.5 Hz	59.3-60.5 Hz
Max. output current (cos φ=1)	44A	48A	48A
Power factor (cos φ)	>0.99 0.8LG - 0.8LD (0.9LG - 0.9LD at full power)		
Harmonics	<3%	<3%	<3%
Grid connection type	3/N/E	3/N/E	3/N/E
Efficiency			
Max. efficiency	98.8%	98.8%	98.8%
CEC-Weighted Efficiency	98.5%	98.5%	98.5%
MPPT efficiency	99.5%	99.5%	99.5%
Protection Devices			
DC reverse-polarity protection	yes	yes	yes
DC switch for each MPP tracker	yes	yes	yes
AC switch	yes	yes	yes
Input over voltage protection surge arrester	type II	type II	type II
DC insulation measure	yes	yes	yes
AC short circuit protection	yes	yes	yes
Output over voltage protection surge arrester	type II	type II	type II
String fuse type/size	yes(15A/1000VDC)	yes(15A/1000VDC)	yes(15A/1000VDC)
AFCI	yes(Compliant to UL 1699B)	yes(Compliant to UL 1699B)	yes(Compliant to UL 1699B)
String monitor	yes	yes	yes
Anti PID	yes	yes	yes
General Data			
Dimensions (W / H / D) in inch	435/790/265mm 17.1/31.1/10.4inch	435/790/265mm 17.1/31.1/10.4inch	435/790/265mm 17.1/31.1/10.4inch
Weight	50kg/110.2lb	50kg/110.2lb	50kg/110.2lb
Operating temperature range	-25..+60℃/(-13...+ 140°F)	-25..+60℃/(-13...+ 140°F)	-25..+60℃/(-13...+ 140°F)
Noise emission	≤50 dB(A)	≤50 dB(A)	≤50 dB(A)
Relative Humidity	0~100%	0~100%	0~100%
Altitude	≤2000m/6560ft	≤2000m/6560ft	≤2000m/6560ft
Self Consumption night	<6 W(AC Power Supply)	<6 W(AC Power Supply)	<6 W(AC Power Supply)
Topology	Transformerless	Transformerless	Transformerless
Cooling concept	Fan Cooling	Fan Cooling	Fan Cooling
Enclosure	NEMA 3R	NEMA 3R	NEMA 3R
Features			
Display	Graphic	Graphic	Graphic
Interface: RS232/RS485/ WIFI/Ethernet/GPRS	yes/yes/ opt /opt	yes/yes/ opt /opt	yes/yes/ opt /opt
Warranty:5years/10years/15years	yes/yes/opt	yes/yes/opt	yes/yes/opt
Certificates and Approvals			
UL1741,UL1998,UL 508C,IEEE1547,FCC part 15(class B),CSA C22.2 No.107.1,CSA C22.2 NO.14			

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Monitoring System

Residential Solution | Commercial Solution

Product Model

Residential Solution



Growatt residential monitoring solution takes great care to ensure that your PV system is in a excellent operation throughout its entire life-cycle. We offer you the widest range of possibilities: wireless or cable based, local or internet based, compact or complex.

ShineLink RF wireless technology, plug and play without any setting.

ShineWiFi Wireless communication with your router, lower cost

ShineLAN Cable plug and play, easy setting

RS485-RJ45 Local monitoring with Growatt free software

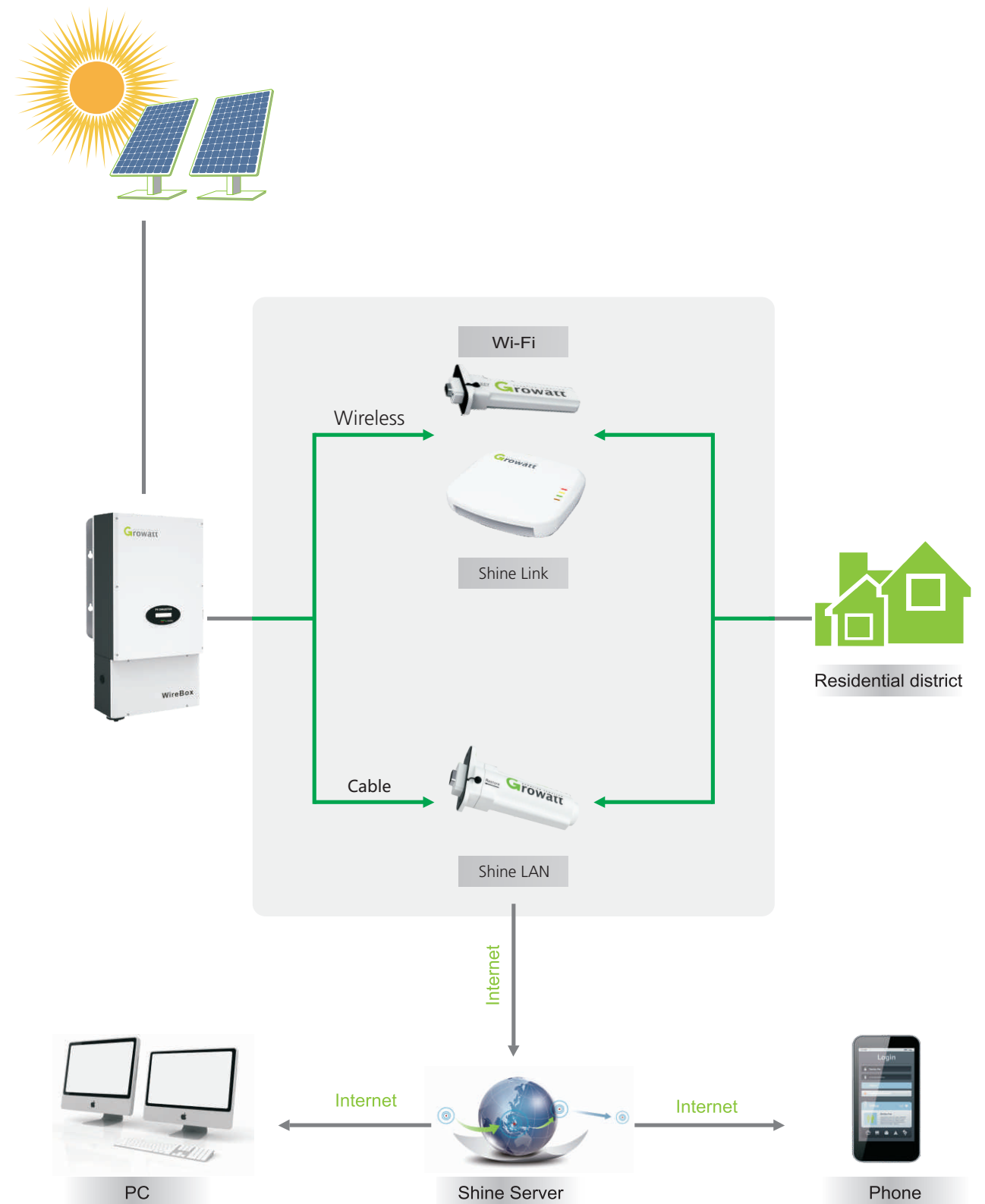
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Product Model

Commercial Solution



Growatt Monitoring system

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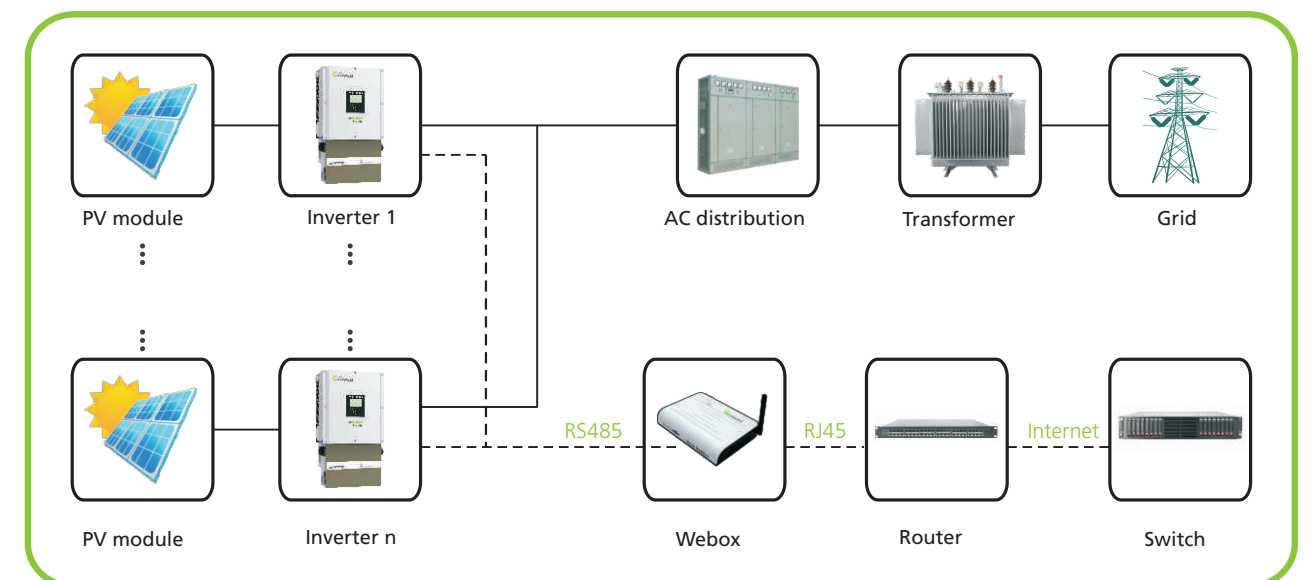
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Commercial Monitoring System



String Inverter Plant Diagram





Service



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