

Solar inverters
for Asia

Solar inverters
for Europe

Solar inverters
for America

Solar inverters
for the Earth

GROWATT NEW ENERGY CO., LTD

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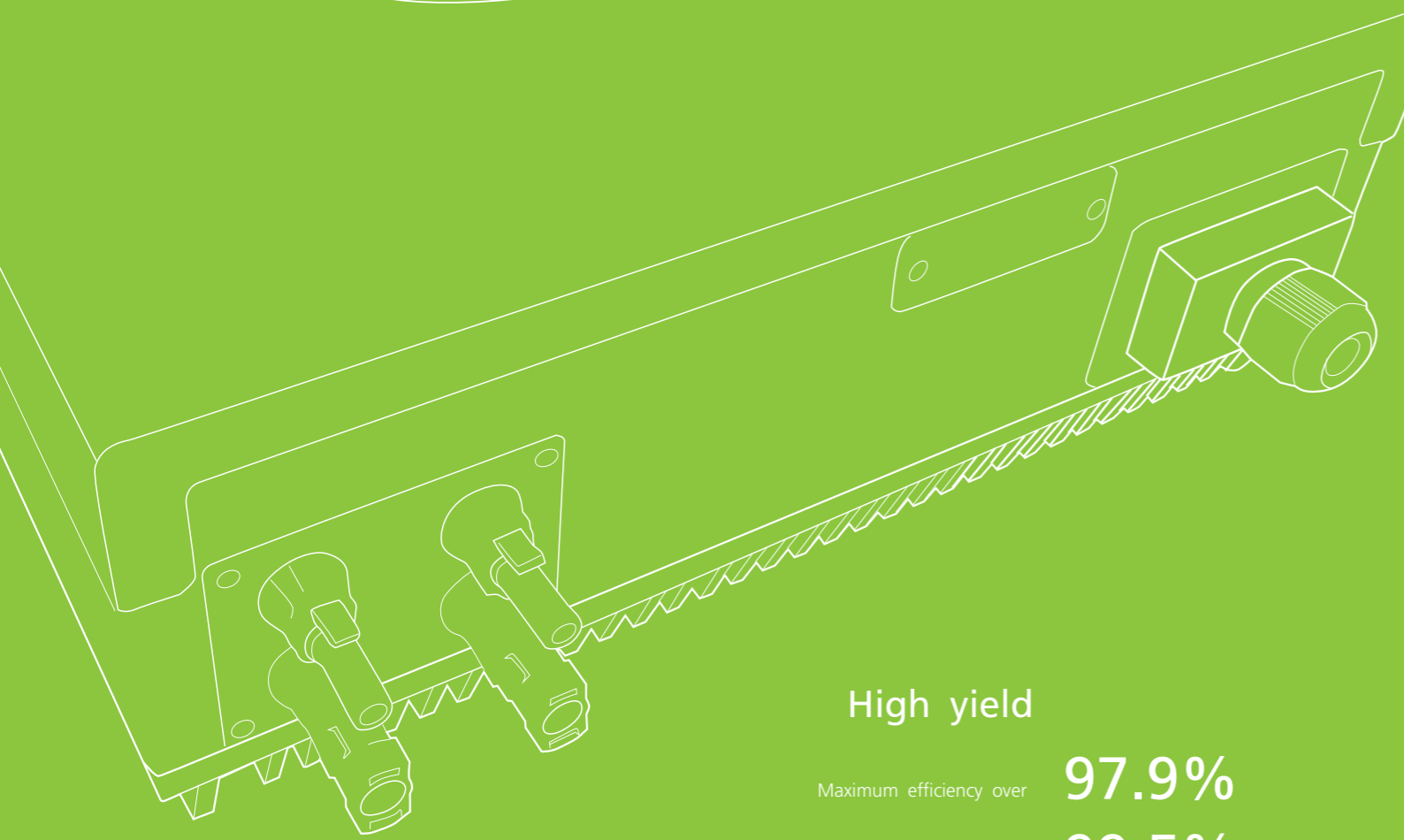
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Green Inverters from

Growatt
powering tomorrow



High yield

Maximum efficiency over **97.9%**

MPPT efficiency over **99.5%**

- MTL-string technology
- Leading Transformerless full-range product
- Convection without fan
- High power density
- High quality production

Safe

internal DC switch protection

Simple

Compact design with light weight
Easily accessible front wiring compartment

Communication

Rs485 RS232 Bluetooth
PV monitoring system



Now, also in the future

The most cost-effective new technology the fast-growing source of power

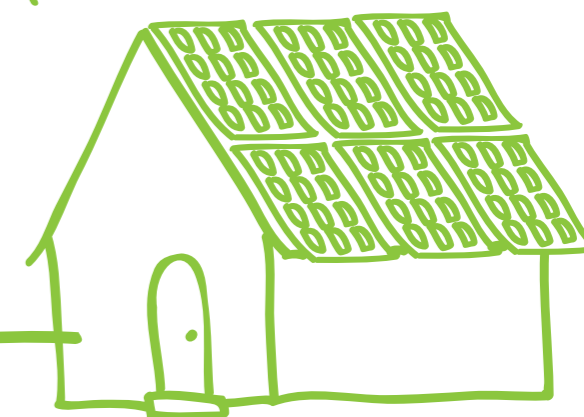
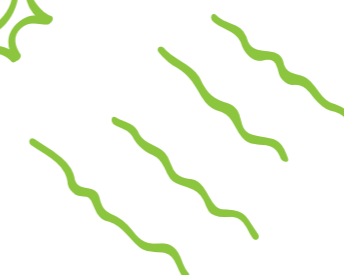
Growatt focuses on the new energy industry, especially the development of photovoltaic power generation system. With an outstanding team of nearly 10 years' experience in photovoltaic power generation, Growatt has finished the design and manufacture of the world's leading commercial and residential inverter, at the same time being praised by professional customers from Europe, Australia, and America within one year. Grasping the current solar technology trends and following the market demands, Growatt is now rapidly growing as one of the world's leading photovoltaic inverter manufacturers.

With our continuously strengthening R&D team about more than 60 advanced R&D engineers, Growatt's products maintain competitive advantages. According to customer's requirements, Growatt inverter can be applied in all kinds of residential and commercial power system with its easy system configuration. Especially the Growatt 1.5 KW to 5KW inverter, it is light-weighted and very easy for installation, which can be monitored wirelessly by Bluetooth. Our 10KW to 20KW three-phase inverter is functioned with reactive power compensation, which can also participate in the intelligent grid management. As one of the representatives of high-efficient inverter, our product greatly reduces the "total investment cost" of the PV system, while greatly decreasing the "investment payback time".

Sustainable and stable technological innovation is the basic principle for the product research and development of Growatt. Under the strict quality control system, we have also reduced 35% of the cost by technical innovation, accelerating the coming era of low-cost photovoltaic power plant. With our flexible product range and short lead time, we can rapidly response to all kinds of customer demands. Growatt, this young but innovative team, is developing quickly in the new energy fields, who will definitely bring total new ideas and vitality to the PV industry.

Enjoy solar inverter technology innovation and the rapid development of the clean energy, Growatt New Energy will live in the present, and looking into the bright future.

David (GM)



About Growatt

Growatt New Energy is a professional manufacturer of high cost-effective photovoltaic inverter, established in March 2010.

Growatt has still kept being a myth in the PV market. With sales volume in second half year of 2010 at USD 5 million; and over USD 25 million in the first half year of 2011, Growatt becomes the No. 1 inverter exporter in China in a very short time. It is predicted that the sales volume in fiscal 2011 will exceed USD 50 million.

Growatt takes the technological innovation as the core drive of sustainable development. Now we have established a R&D center with more than 60 senior R&D engineers, who have 10 years' rich experience together with international concept in solar inverter. With our continuously strengthening R&D team, we now have achieved over 10 patents with our advanced technology.

Located in the Shenzhen, the China Window City, Growatt has approximately 200 employees in the production base, more than 50% of which are with post-graduate degree. The products are widely applied in the market, while ODM customized service are provided for some of the world renowned brands of inverters.

Our main products range from 1.5KW to 500KW on-grid photovoltaic inverters, among which our Growatt 5000 model has been tested in the International Authoritative organization PHOTON, honored with the world - leading efficiency as high as 97.8%. VDE0126 & CE for Europe, SAA for Australia, G83 for UK, ENEL for Italy, RD1663 for Spain, ETL for US, Golden Sun for China now are available for all kinds of different markets. Together with the advanced technology for solar inverter, the overseas market of Growatt is developing rapidly, and our inverters are widely installed in Germany, Italy, UK, France, Australia, New Zealand etc, reaching 50,000pcs in the past year. In order to offer more convenient service for overseas customers, Growatt has established an office in Frankfurt, Germany. The Australian and US offices are also in the registration process.

In early 2011, the well-known venture capital SEQUOIA CAPITAL and domestic investment giant CHINA MERCHANTS GROUP had been introduced to Growatt strategically, greatly enhancing the company's international image and fully financing the development of the new products and new markets. We will enhance the strong impetus to the development of the international and domestic market, maintaining the strong growth as always.

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.

Mos IGBT



IC



Fuse



Capacitor



Current Transducer



Relay



Diode



MCU



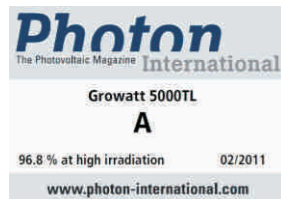
Growatt 1500TL / 2000TL / 3000TL / 4400TL / 5000TL

Leading - edge Technology

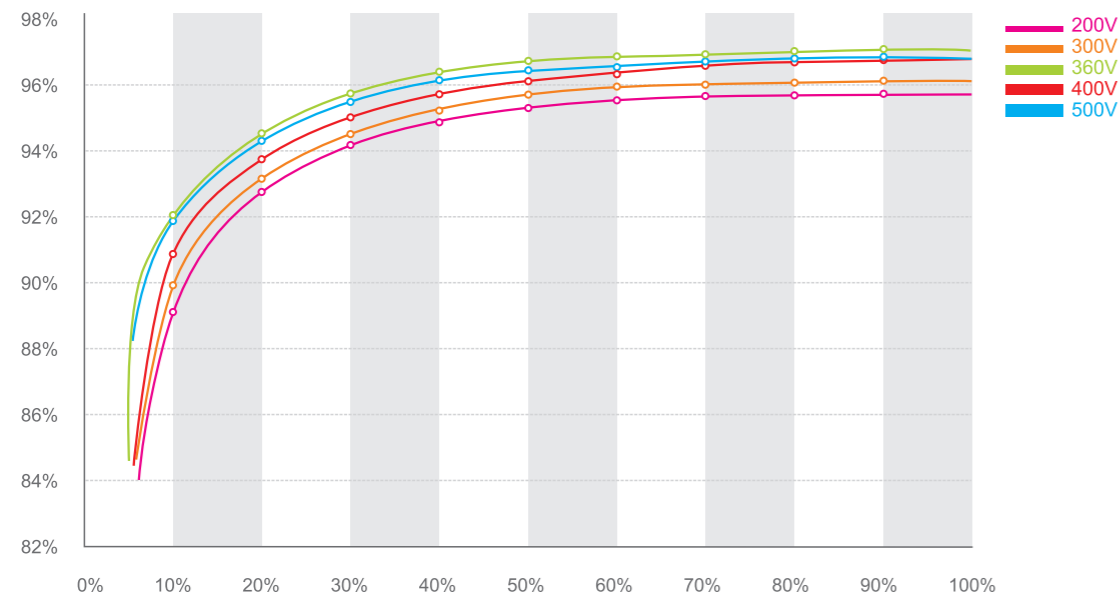
- ▶ Maximum efficiency of 97.8% and wide input voltage range
- ▶ Internal DC switch
- ▶ Transformerless GT topology
- ▶ Compact design
- ▶ MTL - String
- ▶ Bluetooth / RF technology / ZigBee
- ▶ Sound control
- ▶ Easy installation
- ▶ Comprehensive Growatt warranty program

Europe ENS

- ▶ Simple national setting of line supply monitoring(ENS)
- ▶ Easy country configuration
- ▶ Multi - language display
- ▶ Currently available for Germany, Austria, France, Switzerland, UK, Italy and Spain etc.



5k efficiency



Datasheet

	Growatt 1500TL	Growatt 2000TL	Growatt 3000TL	Growatt 4400TL	Growatt 5000TL
Input Data					
Max. DC power	1800W	2300W	3200W	4600W	5000W/5200W
Max. DC voltage	450V	500V	500V	580V	580V
Full load Mpp-Voltage range	175V - 430V	195V - 450V	250V - 450V	250V - 500V	250V - 500V
PV voltage range MPPT	120V - 450V	120V - 450V	120V - 450V	120V - 500V	120V - 500V
Initial / shut-down voltage	100V / 70V	100V / 70V	100V / 70V	100V / 70V	100V / 70V
Start voltage	150V	150V	150V	150V	150V
Max. number of parallel strings	1	2	2	3	3
Number of MPP trackers	1	1	1	1	1
Max. input current	10A	12A	15A	20A	20A
Output (AC)					
Nominal AC output power	1600W	2000W	2850W	4200W	4600W/5000W *
Max. AC power	1650W	2200W	3000W	4400W	4600W/5200W
Max. output current	8A	11A	13A	21A	22.3A
AC voltage range	180V - 280V	180V - 280V	180V - 280V	180V - 280V	180V - 280V
AC grid frequency range	50Hz, 60Hz±5Hz	50Hz, 60Hz±5Hz	50Hz, 60Hz±5Hz	50Hz, 60Hz±5Hz	50Hz, 60Hz±5Hz
Phase shift	1	1	1	1	1
THDI	<3%	<3%	<3%	<3%	<3%
AC connection	Single phase	Single phase	Single phase	Single phase	Single phase
Efficiency					
Max. efficiency	97%	97%	97%	97.8%	97.8%
Euro-eta	96%	96%	96.5%	97.4%	97.4%
MPPT efficiency	99.5%	99.5%	99.5%	99.5%	99.5%
Protection Devices					
DC reverse polarity protection	yes	yes	yes	yes	yes
AC short-circuit 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
General Data					
Dimensions (W / H / D) in mm	362/329/132	362/329/132	362/329/132	406/406/192	406/406/192
Weight	11.5KG	11.7KG	12.2KG	21KG	21KG
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)
Consumption: operating (standby)/ night	< 5W / < 0.5 W	< 5W / < 0.5 W	< 5W / < 0.5 W	< 5W / < 0.5 W	< 5W / < 0.5 W
Topology	Transformerless	Transformerless	Transformerless	Transformerless	Transformerless
Cooling concept	No fan	No fan	No fan	No fan	No fan
Installation: Indoors / Outdoors (IP65)	yes / yes	yes / yes	yes / yes	yes / yes	yes / yes
Altitude	Up to 2000m without power derating	Up to 2000m without power derating	Up to 2000m without power derating	Up to 2000m without power derating	Up to 2000m without power derating
Humidity	0 ~ 95%, no condensation	0 ~ 95%, no condensation	0 ~ 95%, no condensation	0 ~ 95%, no condensation	0 ~ 95%, no condensation
Features					
DC connection:(H4 / MC4)	yes / opt	yes / opt	yes / opt	yes / opt	yes / opt
AC connection: Terminals	yes	yes	yes	yes	yes
LCD display	yes	yes	yes	yes	yes
Interfaces: RS485/RS232/Bluetooth/RF/ZigBee	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt
Warranty: 5 years / 10 years	yes / opt	yes / opt	yes / opt	yes / opt	yes / opt
Certificates and Approvals					
CE / TUV, EN50178, VDE0126-1-1, EN61000-3-2, EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, IEC-62109,DK5940, G83,RD1663, VDE-AR-N4105, CEI 0-21				* Optionally provide 5000W	

Growatt 2500 MTL / 3000 MTL

Leading - edge Technology

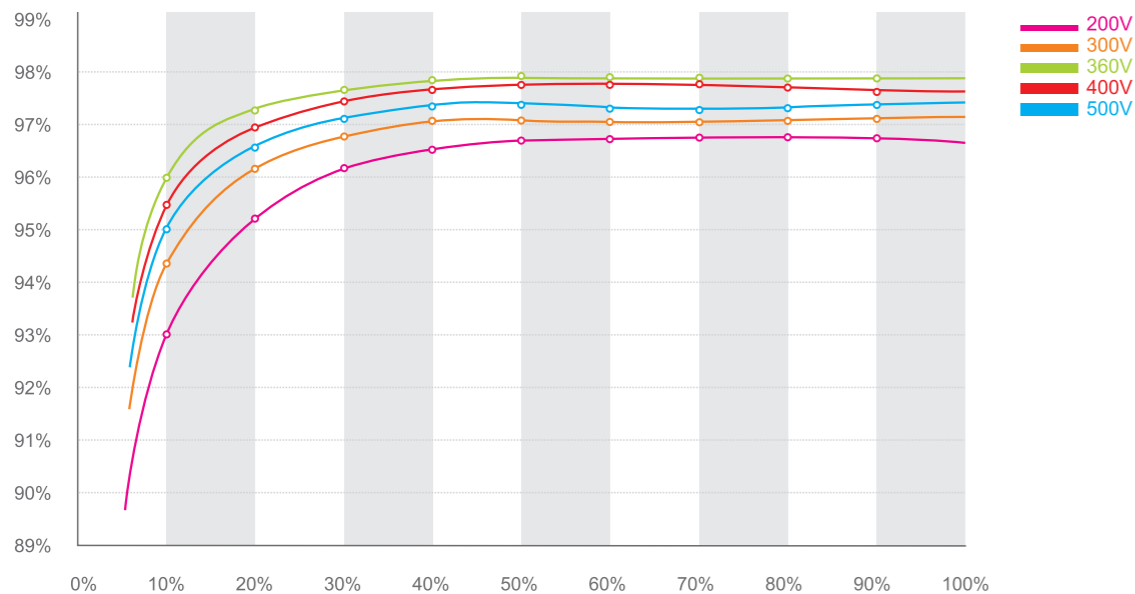
- ▶ Maximum efficiency of 97.5% and wide input voltage range
- ▶ Internal DC switch
- ▶ Transformerless GT topology
- ▶ Compact design
- ▶ Multi MPP controller
- ▶ MTL - String
- ▶ Bluetooth / RF technology / ZigBee
- ▶ Sound control
- ▶ Easy installation

Europe / Australia ENS

- ▶ Simple national setting of line supply monitoring(ENS)
- ▶ Easy country configuration
- ▶ Multi - language display
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3k efficiency



Datasheet

	Growatt 2500 MTL	Growatt 3000 MTL
Input Data		
Max. DC power	2700W	3200W
Max. DC voltage	500V	500V
PV voltage range	100V - 500V	100V - 500V
MPPT voltage range	200V - 450V	200V - 450V
Initial / shut-down voltage	100V / 70V	100V / 70V
Max. number of parallel strings	1/1	1/1
Number of MPP trackers	2(can parallel)	2(can parallel)
Max. input current of MPPT	10A / 10A	15A / 15A
Output (AC)		
Nominal AC output power	2500W	3000W
Nominal output current	10.8A	13A
Max. output current	12.5A	15A
Nominal AC voltage	220V / 230V / 240V	220V / 230V / 240V
Operational AC voltage range	180V - 280V	180V - 280V
AC grid frequency range	50Hz, 60Hz / ±5Hz	50Hz, 60Hz / ±5Hz
Phase shift (cos φ)	1	1
THDI	<3%	<3%
AC connection	Single phase	Single phase
Efficiency		
Max. efficiency	97.5%	97.5%
Euro-eta	97%	97.4%
MPPT efficiency	99.5%	99.5%
Protection Devices		
DC reverse polarity protection	yes	yes
AC short-circuit protection	yes	yes
Ground fault monitoring	yes	yes
Grid monitoring	yes	yes
Integrated all-pole sensitive leakage current monitoring unit	yes	yes
Anti-islanding protection	yes	yes
General Data		
Dimensions (W / H / D) in mm	360/421/188	360/421/188
Weight	15.6KG	15.6KG
Operating temperature range	-30 °C ... +60 °C	-30 °C ... +60 °C
Noise emission (typical)	< 25 dB(A)	< 25 dB(A)
Consumption: operating (standby)/ night	< 5W / < 0.5 W	< 5W / < 0.5 W
Topology	Transformerless	Transformerless
Cooling concept	No fan	No fan
Installation: Indoors / Outdoors (IP65)	yes / yes	yes / yes
Altitude	Up to 2000m without power derating	Up to 2000m without power derating
Humidity	0 - 95%, no condensation	0 - 95%, no condensation
Features		
DC connection:(H4 / MC4)	yes / opt	yes / opt
AC connection: Terminals	yes	yes
LCD display	yes	yes
Interfaces: RS485/RS232/Bluetooth/RF/ZigBee	yes / yes / opt / opt / opt	yes / yes / opt / opt / opt
Warranty: 5 years / 10 years	yes / opt	yes / opt

Certificates and Approvals

SAA, CE / TUV,EN50178, VDE0126-1-1, EN61000-3-2EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, IEC-62109,DK5940,G83,RD1663,VDE-AR-N4105, CEI 0-21

Growatt 3600MTL / 4200MTL / 5000MTL

Leading - edge Technology

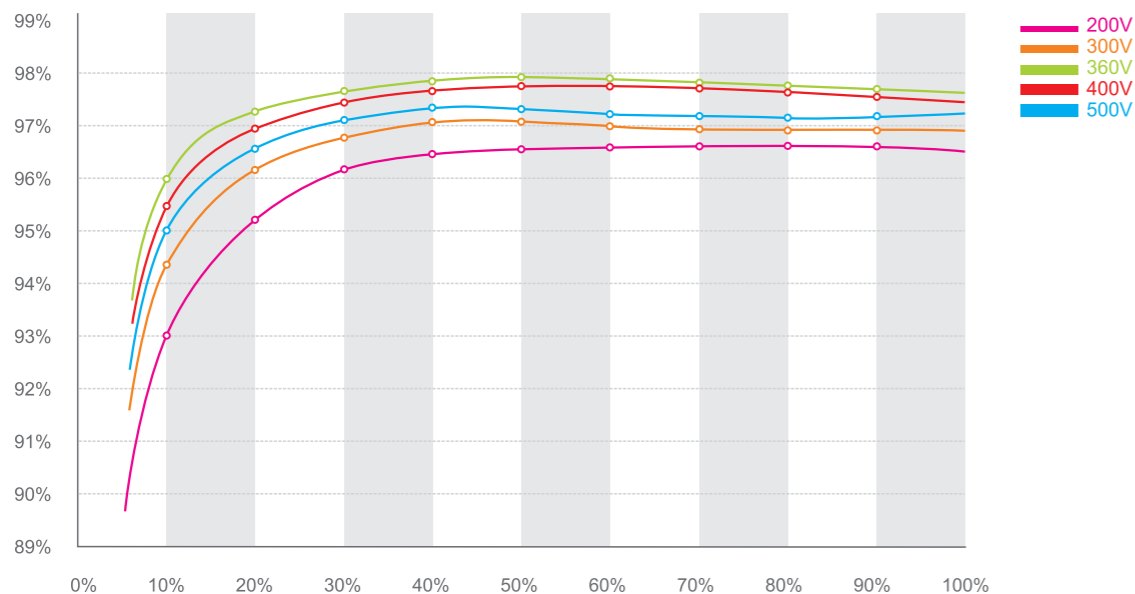
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Europe / Australia ENS

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5k efficiency



Datasheet

	Growatt 3600MTL	Growatt 4200MTL	Growatt 5000MTL
Input Data			
Max. DC power	3800W	4400W	5200W
Max. DC voltage	600V	600V	600V
PV voltage range MPPT	120V - 550V	120V - 550V	120V - 550V
Initial / shut-down voltage	100V / 70V	100V / 70V	100V / 70V
Max. number of parallel strings	2/2	2/2	2/2
Number of MPP trackers	2(can parallel)	2(can parallel)	2(can parallel)
MPPT input current	10A / 10A	15A / 15A	15A / 15A
Output (AC)			
Nominal AC output power	3600W	4200W	4600W/5000W *
Max. output current	18A	21A	25A
Nominal AC voltage / range	220V/230V/240V 180V - 280V	220V/230V/240V 180V - 280V	220V/230V/240V 180V - 280V
AC grid frequency range	50Hz, 60Hz / ±5Hz	50Hz, 60Hz / ±5Hz	50Hz, 60Hz / ±5Hz
Phase shift (cos φ)	1	1	1
THDI	<3%	<3%	<3%
AC connection	Single phase	Single phase	Single phase
Efficiency			
Max. efficiency	97.6%	97.9%	97.9%
Euro-eta	97%	97.4%	97.4%
MPPT efficiency	99.5%	99.5%	99.5%
Protection Devices			
DC reverse polarity protection	yes	yes	yes
AC short-circuit protection	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
General Data			
Dimensions (W / H / D) in mm	360/510/188	360/510/188	360/510/188
Weight	24KG	24KG	24KG
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)
Consumption: operating (standby)/ night	< 5W / < 0.5 W	< 5W / < 0.5 W	< 5W / < 0.5 W
Topology	Transformerless	Transformerless	Transformerless
Cooling concept	No fan	No fan	No fan
Installation: Indoors / Outdoors (IP65)	yes / yes	yes / yes	yes / yes
Altitude	Up to 2000m without power derating	Up to 2000m without power derating	Up to 2000m without power derating
Humidity	0 ~ 95%, no condensation	0 ~ 95%, no condensation	0 ~ 95%, no condensation
Features			
DC connection:(H4 / MC4)	yes / opt	yes / opt	yes / opt
AC connection: Terminals	yes	yes	yes
LCD display	yes	yes	yes
Interfaces: RS485/RS232/Bluetooth/RF/ZigBee	yes / yes / opt / opt / opt	yes / yes / opt / opt / opt	yes / yes / opt / opt / opt
Warranty: 5 years / 10 years	yes / opt	yes / opt	yes / opt
Certificates and Approvals			
	CE, VDE0126-1-1, IEC62109,RD1663,G83 EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4 AS4777,AS/NZS3100, VDE-AR-N4105, CEI 0-21		* Optionally provide 5000W

Growatt 10000UE / 12000UE / 18000UE / 20000UE

Leading - edge Technology

- ▶ DC input voltage up to 1000V
- ▶ Maximum efficiency of 98%
- ▶ Internal DC switch
- ▶ Transformerless
- ▶ Compact design
- ▶ Multi MPP controller
- ▶ MTL - String
- ▶ Bluetooth technology
- ▶ Sound control
- ▶ Easy installation
- ▶ Comprehensive Growatt warranty program

Europe / Australia ENS

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Datasheet

	Growatt 10000UE	Growatt 12000UE	Growatt 18000UE	Growatt 20000UE
Input Data				
Max. DC power	10500W	12500W	18700W	20800W
Max DC voltage	1000V	1000V	1000V	1000V
PV voltage range MPPT	400V-800V	400V-800V	400V-800V	400V-800V
Initial / shut-down voltage	300V / 150V	300V / 150V	300V / 150V	300V / 150V
Max input current(input A / input B)	15A / 15A	17A / 17A	23A / 23A	26A / 26A
Number of MPP trackers	2	2	2	2
Max number of parallel strings(input A / input B)	2/2	2/2	3/3	3/3
Output (AC)				
Nominal output power	10KW	12KW	18KW	20KW
Max. apparent power	10KVA	12KVA	18KVA	20KVA
Max. output current (overload 110%)	14.4A	17.5A	26A	29A
Nominal AC voltage range	3/N/PE 230V/400V	3/N/PE 230V/400V	3/N/PE 230V/400V	3/N/PE 230V/400V
AC grid frequency range	50/60Hz - 6Hz/+5Hz	50/60Hz - 6Hz/+5Hz	50/60Hz - 6Hz/+5Hz	50/60Hz - 6Hz/+5Hz
Phase shift (cos φ) adjustable	0.8 leading -0.8laging	0.8 leading -0.8laging	0.8 leading -0.8laging	0.8 leading -0.8laging
Ac output THDI	<3%(nominal power output)	<3%(nominal power output)	<3%(nominal power output)	<3%(nominal power output)
AC connection	Three phase	Three phase	Three phase	Three phase
Consumption(night)	<0.5W	<0.5W	<0.5W	<0.5W
Electronics string fuse	20A	25A	30A	40A
Ground failure detection	yes	yes	yes	yes
Efficiency				
Max. efficiency	98%	98%	98%	98%
Euro efficiency	97.5%	97.5%	97.5%	97.5%
General Data				
Dimensions (W / H / D) in mm	440/740/235	440/740/235	520/740/235	520/740/235
Weight	41KG	41KG	60KG	60KG
Topology	Transformerless	Transformerless	Transformerless	Transformerless
Ambient operational range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Cooling concept	Fans	Fans	Fans	Fans
Installation indoors/ outdoors(IP 65)	yes / yes	yes / yes	yes / yes	yes / yes
Altitude	Up to 2000m without power derating	Up to 2000m without power derating	Up to 2000m without power derating	Up to 2000m without power derating
Humidity	0 ~ 95%, no condensation	0 ~ 95%, no condensation	0 ~ 95%, no condensation	0 ~ 95%, no condensation
Features				
DC connection: (H4 / Mc4)	yes / opt	yes / opt	yes / opt	yes / opt
LCD display	yes (Alphanumeric 4 lines)	yes (Alphanumeric 4 lines)	yes (Alphanumeric 4 lines)	yes (Alphanumeric 4 lines)
Interfaces: RS485/RS232/Bluetooth/RF/ZigBee	yes / yes / opt / opt / opt	yes / yes / opt / opt / opt	yes / yes / opt / opt / opt	yes / yes / opt / opt / opt
Warranty:5 years / 10 years	yes / opt	yes / opt	yes / opt	yes / opt
Certificates and Approvals				
VDE0126-1-1, IEC62109, RD 1663, G59, G83, EN61000-6-2, EN61000-6-3, AS4777, AS/NZS 3100, ENEL-Guide, VDE-AR-N4105, CEI 0-21				

The all-in-one wireless monitoring package for home

Informative, cute, and easy to operate, the ShineVision with Radio Frequency not only has sexy design, but also provides an innovative monitoring solution. Key data is visible on its display, including daily, monthly, total power yield and income, DC and AC voltage, energy yield in Euros, US dollars and Pounds, temperature, time, as well as insolation levels, which can be accessed just like a mobile phone. It can update and store the latest data permanently. ShineVision also can be set up to emit an audio signal to tell operators of system errors automatically.

Features

- ▶ RF communication for wireless operation.
- ▶ Automatic monitoring of up to six inverters simultaneously, applicable for small home system.
- ▶ Simple installation. It can be placed anywhere indoor with signal coverage.
- ▶ Easy-to-understand data display by simple key operation: real-time power, three-phase AC voltage, PV voltage, daily, monthly and total power yield and income, temperature, light intensity, the date and time.
- ▶ Data archiving automatically and permanently with high security.
- ▶ Audio alarm in the event of errors.
- ▶ Low power consumption, powered by adaptor or battery.



Datasheet

Communication

Inverter communication	Wireless radio frequency
Number of inverters	Max.6 units

Communication range

Partition communication	Max.30m
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Power supply

Power supply	AC 100-240V~50/60Hz, 0.15A DC 4.5V, 0.1A
Type of battery	#7 AAA alkaline battery

Environmental conditions for operation

Emitter temperature	-10°C ~ 60 °C
Monitor temperature	-10 °C ~ 50°C
Humidity range	≤80%
Protection rating	IP20

General Data

Dimensions (W / H / D) in mm	78/118/52
Weight	120g
Installation site	Indoor
Deployment options	Desktop device
Language versions	English

Features

Display	LCD display
Operation	key-press
Warranty	13 months

Information displayed

General Information	Time, date, temperature
System Data	Three-phase AC voltage, PV voltage, real time power, daily yield, monthly yield, total yield, income

Shine Pano

It is the latest intelligent monitoring master, specially designed for solar power plant. Using stable Linux operating system with high-speed CPU, smartly present solar system status through friendly user interface on 8-inch large color touch screen.

Features:

- ▶ A multi-functional and high-performance communication data logger;
- ▶ Keep user informed of the system's status at any time,
- ▶ Massive storage with flexible parameters setting, system information management, error prompt and record .
- ▶ Collects data and uploads information over the internet in near real-time to Growatt Shine Server platform.



Datasheet

Communication

Communication with Inverters	RS 485 (Wire connection) CAN (Wire connection, optional) ZigBee (Wireless connection) Wi-Fi (Wireless connection, optional) Bluetooth (Wireless connection, optional)
Communication Range	Wire connection : 1200M Wireless connection : 30~50M
Communication with PC	Available with Growatt ShineServer, ShineNet remote TCP/IP communication
Monitor Number	RS 485: 32units ZigBee: 50units

HMI (Human Machine Interface)

Screen	800×600 TFT, True color touch screen, Up to 262,144 colors
LED	System operation state indicator

Power supply

Power Supply	AC 100~240V, 50HZ/60HZ, DC 18V, 1A
Power Consumption	Screen On: 4.5W Screen Off: 2.5W

General Data

Dimensions (W/H/D)	240/160/25MM
Weight	0.66KG
Operating Temperature Range	-10~+60°C
Installation	Indoor
Language	English
Data Update Frequency	5 minutes, 10 minutes (default), 15 minutes
Date Storage Time	More than 5 years storage capacity via 2 Gigabyte SD card

Information Displayed

System Data	Inverter list, real-time power, daily energy yield, historical record, color bar chart, etc.
Single Inverter Data	PV/AC voltage, PV/AC current, PV/AC power, AC frequency, daily energy yield, historical energy yield, power graph, power histogram, etc.
Grid Data	Grid voltage, grid frequency

Shine WebBox

It is a cost-effective and compact monitoring device, specially designed for solar power plant. Using stable Linux operating system with high-speed CPU, smartly record your system features. Provide local storage, easy wireless and TCP/IP configuration, and present plant data over Internet.

Features:

- ▶ A multi-functional and high-performance communication data logger;
- ▶ Keep user informed of the system's status at any time,
- ▶ Massive storage with flexible parameters setting, system information management, error prompt and record .
- ▶ Collects data and uploads information over the internet in near real-time to Growatt Shine Server platform.



Datasheet

Communication

Communication with Inverters	RS 485 (Wire connection) CAN (Wire connection, optional) ZigBee (Wireless connection) Wi-Fi (Wireless connection, optional) Bluetooth (Wireless connection, optional)
Communication Range	Wire Connection : 1200M Wireless Connection : 30~50M
Communication with PC	Available with Growatt ShineServer, ShineNet remote TCP/IP communication Available to set WebBox parameters via TCP/IP setting on PC
Monitor Number	RS 485: 32units ZigBee: 50units

HMI (Human Machine Interface)

LED	System operation state indicator
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Power supply

Power supply	AC 100~240V, 50HZ/60HZ, DC 18V, 1A
Power Consumption	2.5W

General Data

Dimensions (W/H/D)	188/120/30mm
Weight	0.30kg
Operating Temperature Range	-10~+60°C
Installation	Indoor
Data Update Frequency	5 minutes, 10 minutes (default), 15 minutes
Data Storage Time	More than 5 years storage capacity via 2 Gigabyte SD card

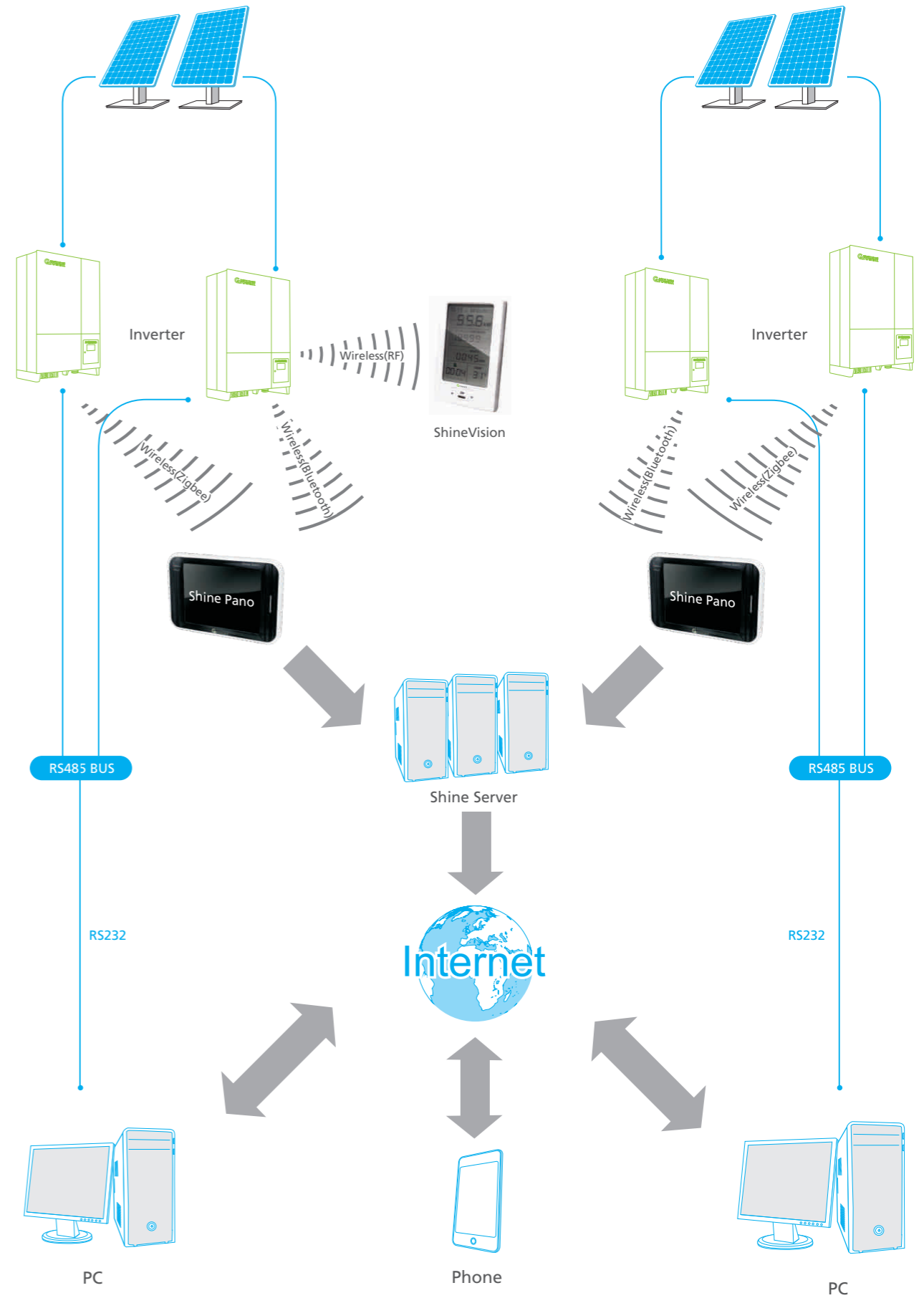
Information Recorded

System Data	Inverter list, real-time power, daily energy yield, historical record, color bar chart, etc.
Single Inverter Data	PV/AC voltage, PV/AC current, PV/AC power, AC frequency, daily energy yield, historical energy yield, power graph, power histogram, etc.
Grid Data	Grid voltage, grid frequency

Monitoring system

Growatt monitor system is diversified and highly intelligent. ShineVision and ShinePano provide PV plant owners and operators a web-enabled platform for real-time alerting, fault reporting, billing and facility managing to maximize system energy output while minimizing the costs.

Through the powerful back-ups from our hardware and software, various communication protocols and interfaces, our customers can simply manage the portfolios of different systems-- from residential to commercial roof to utility scale--from any location of the world.



ShineNet

ShineNet is monitoring software applied to monitor inverters from Growatt. Users are able to monitor their Growatt inverters via RS232 port or Bluetooth module. With the special designed functions and friendly compact UI, it will comprehensively meet users' requirements for system monitoring and bring unprecedented user experience.

Features

- ▶ Monitor and record current data of inverters
- ▶ Record historical data
- ▶ Monitor and record event information of inverter
- ▶ Connect computer and inverter via RS232 and RS485 port (wire connection) or Bluetooth module (wireless connection)
- ▶ Remote access available for local area network



Growatt is the largest inverter exporter in China. With the best price and stable performance, Growatt solar inverter has quickly seized some market share in the world. Now we are the No.1 supplier in Australia. We have installed thousands of roof-top projects in Australia, Europe and America, at the same time Growatt pushes the ideas of green energy to the world.

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Choose Growatt

Choose golden service

7 X 24 global on line support

Growatt Photovoltaic Inverter

The cost PV inverter is just a small proportion of the whole PV system, however the system operation and power generation are completely controlled by the inverter. Growatt PV inverter has been tested by many professional organizations, which is very applicable for residential solar system, as well as power plant.

High efficiency

On the PV market of developed countries, the national power grid conditions are relatively good. Therefore most of the countries choose more environmentally friendly and efficient multicrystalline silicon solar panel. For such applications, the Growatt transformerless inverters brings more stable and sustainable higher power generation. Growatt inverter can also be applied with parts of the noncrystal silicon modules and concentrator modules.

Easy Installation

Easy wall mount installation, convenient AC/DC connections. Internal DC switch, automatic detection of grid safety and disconnect settings. By simple adjustment, Growatt inverter can be applied in different countries with different grids and safety standards.

Safe and reliable

Internal DC switch; AC/DC side safety protection and failure checking; communications by RS485, RS232, Bluetooth and GPRS.

Smart Monitoring

Growatt inverters can be wirelessly communicated by RS485, RS232, Bluetooth, RF technology Sound control, ZigBee, or GPRS, matching with all kinds of monitoring device, in order to realize computer monitoring, system diagnostics and maintenance.

Warranty

All the Growatt inverter has 5 years free warranty.

