GOODWE

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V2.2

Photovoltaic Inverter 1.5-500kW Series

GOODWE

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Jiangsu GoodWe Power Supply Technology Co., Ltd. is a high-tech enterprise, taking the inspirational target of “improve the global environment and improve the quality of people’s life” as the company’s vision. We endeavor to be the world’s leading inverter supplier of clean energy.

We have an outstanding, experienced and talented world-class R&D team. We will continue to invest in R&D and persistent improvement, since we truly believe that continuous technological innovation and technological leadership is the source of our company’s core competitiveness.

Meanwhile, we continue to develop our customer service, helping our customers realizing value, which is what we persistently pursue.

We wish to be your ideal partner in development of clean energy nationally and internationally.

General Manager

GoodWe Power Supply Technology Co., Ltd

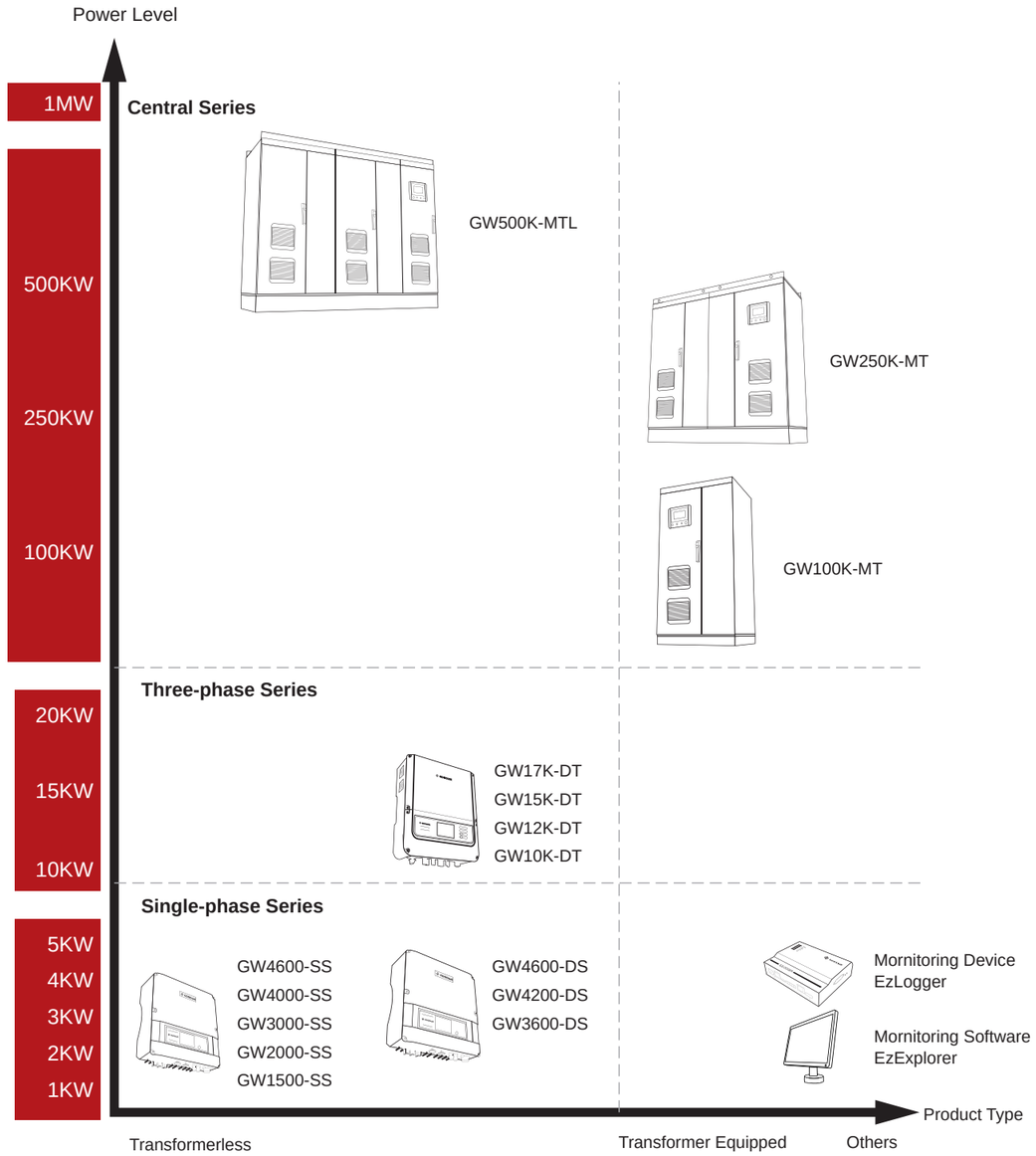
WHERE THE SUN SHINES THERE IS GOODWE!

GoodWe Power Supply Technology Co., LTD. is a rapidly developed new energy enterprise. GoodWe is headquartered in a beautiful city Suzhou of Jiangsu province with first investment of 120 million CHY. Since founded in 2010, the company has been focusing on clean energy product development, production and sales, such as solar and wind power inverter.

Our R&D team has more than 100 professional engineers with rich industry experience over 10 years. We have already developed and produced SS(single MPPT single-phase), DS (dual MPPT single phase), DT(dual MPPT three phase) and MT (central) series solar inverter products, covering power range from 1.5 to 500kW.

GoodWe inverters have already obtained several certificates from international authority organization, such as VDE, TUV, CGC, CE,SAA, G83, G59, ENEL Guide... The company has passed ISO9001:2008 Quality Certification System.

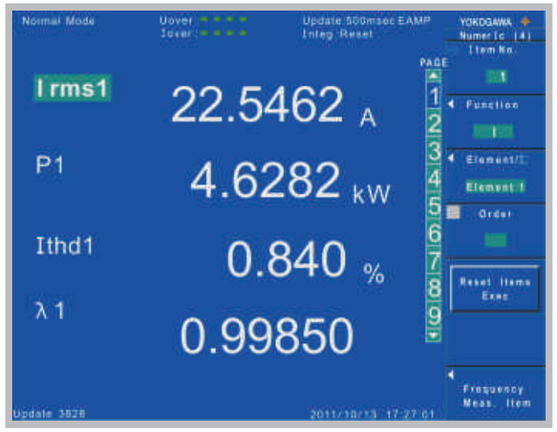
Product Overview

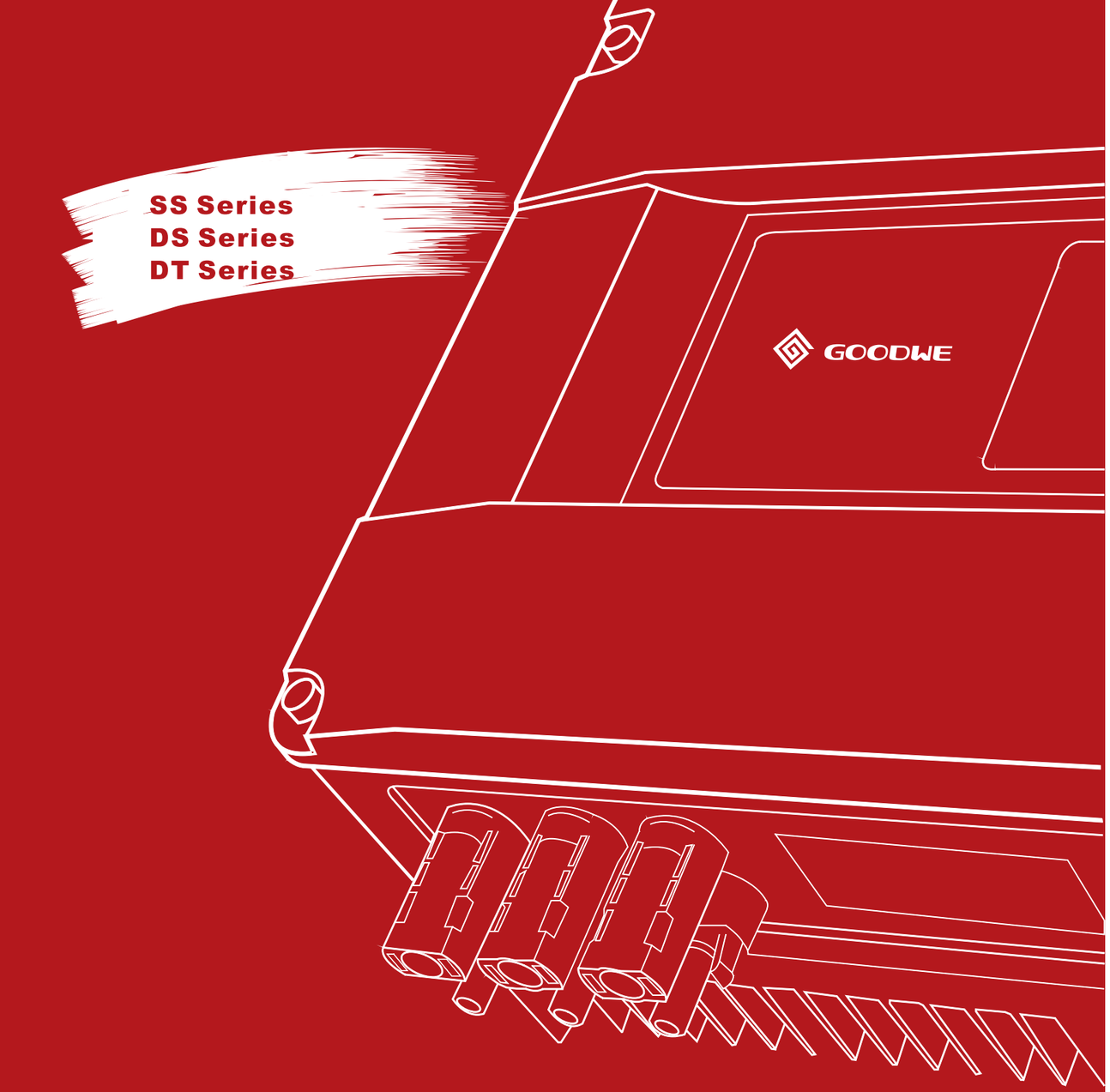


Certificates:

ENEL Guide RD1699 ISO 9001:2008

THDi<1%





FIRST CHOICE

For Residential &Commercial PV System

Core features

Highly insist on product quality

- Every component comes from industry-leading suppliers
- Every product must pass strict ATS test
- Every product has a report with 10 key performance indexes

Ingenious product design and workmanship

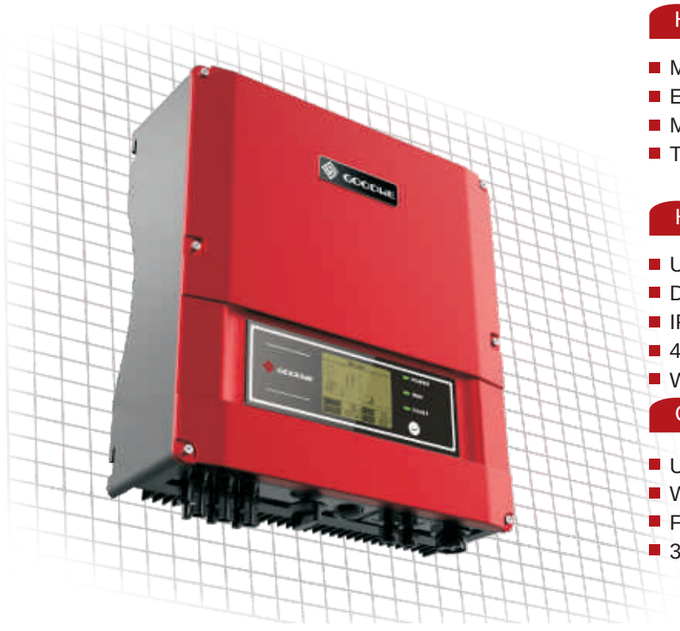
- World-class industry design and workmanship
- Colorful appearance (mainly for residential products)

World-class product performance

- 1-5kw products conversion efficiency up to 97.8%
- 10-17kw products conversion efficiency up to 98.2%
- All products' MPPT efficiency over 99.5%
- Products' THDi less than 1% (SS/MT)

Safest measurements and convenient operation

- Up to 10 safety measurements
- IP65 anti-dust and water-proof applied
- DC switch disconnector
- World-wide certification (VDE, TUV, CE, SAA, G83, G59, ENEL, CGC…)



color options

High Performance

- Maximum Efficiency up to 97.8%
- European Efficiency up to 97.4%
- MPPT Efficiency over 99.5%
- THDi less than 1%

High Safety and Reliability

- Up to 10 safty measurements
- DC switch disconnector
- IP65 dust-proof and water-proof
- 45°C full-load output
- Wide range of MPPT volatge

Customer-oriented Design

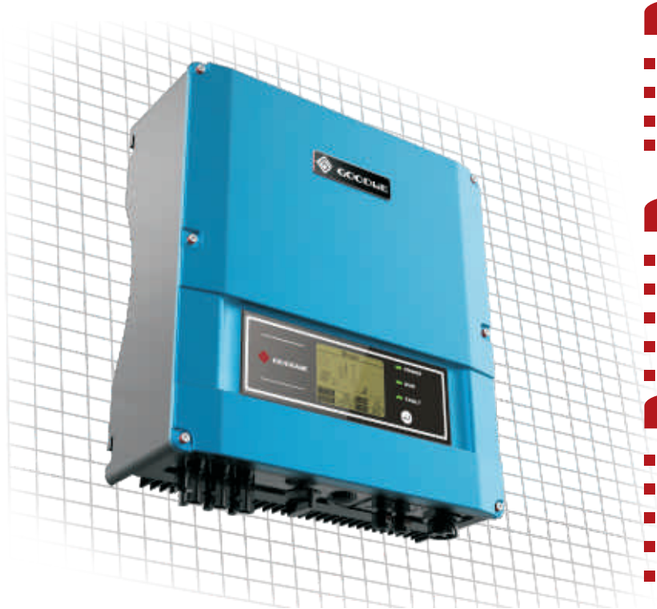
- User-friendly Large LCD
- Wireless mornitoring and communication
- Fanless low-noise design
- 3 selectable apperance colors

SS (Single-MPPT Single-phase) Series

The SS series is widely and flexibly used in domestic units because of its wide range of voltage and current inputs. It features very high conversion efficiency and reliability. SS series provides long-term and stable generating benefits. The powerful, intelligent, user friendly interface and sleek stylish design make it most suitable for domestic applications.

Technical Data

		GW1500-SS	GW2000-SS	GW3000-SS	GW4000-SS	GW4600-SS
DC Input Data	Max. PV-generator power [W]	1800	2300	3200	4600	5400
	Max. DC voltage [V]	450	500	500	580	580
	MPPT voltage range [V]	125~450	125~450	125~450	125~550	125~550
	Turn on DC voltage [V]	125	125	125	125	125
	Max. DC work current [A]	12	15	18	20	20
	Number of inputs/MPP trackers	1/1	2/1	2/1	3/1	3/1
	DC connector	MC IV Connector				
	Standby power consumption [W]	5				
AC Output Data	Nominal AC power [W]	1500	2000	3000	4000	4600
	Max. AC power [W]	1650	2000	3000	4400	5100
	Max. AC current [A]	8	10	15	22	25
	Nominal output voltage range	According to VDE-AR-N 4105, VDE 0126-1-1/A1, RD1699, ENEL, G83/1, G59/2, AS4777.2/.3				
	AC grid frequency	According to VDE-AR-N 4105, VDE 0126-1-1/A1, RD1699, ENEL, G83/1, G59/2, AS4777.2/.3				
	THDi	<1%				
	Power factor	~1 (Nominal power)				
	AC connector	Single phase				
Efficiency	Max. efficiency	97.0%	97.0%	97.0%	97.8%	97.8%
	European efficiency	>96.0%	>96.0%	>96.5%	>97.4%	>97.4%
	MPPT adaptation efficiency	>99.5%				
Safety Equipment	Leakage current monitoring unit	Integrated				
	DC switch	Optional				
	Islanding protection	AFD				
	Grid monitoring	According to VDE-AR-N 4105, VDE 0126-1-1/A1, RD1699, CEI 0-21, G83/1, G59/2, AS4777.2/.3				
Normative Reference	EMC compliance	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4				
	Safety compliance	According to IEC 62109-1, AS3100				
General Data	Dimensions (W*H*D) [mm]	330*350*125	330*350*125	330*350*125	390*417*142	390*417*142
	Net weight [kg]	12	12	13	18	18
	Housing	For outdoor and indoor				
	Mounting information	Wall mounting				
	Operating temperature range	-20~60°C (up 45°C derating)				
	Relative humidity	0~95%				
	Site altitude [m]	2000				
	IP protection class	IP65				
	Topology	Transformerless				
	Cooling concept	Natural convection				
	Noise level [dB]	<25				
	Display	4 LCD				
	Communication	USB2.0 ; RS485 [Wireless(ZigBee) optional]				
	Standard warranty [years]	5/10/15/20/25(optional)				



color options

High Performance

- Dual MPP trackers to suit two-side roof
- Maximum Efficiency up to 97.8%
- European Efficiency up to 97.4%
- MPPT Efficiency over 99.5%

Hight Safety and Reliability

- Up to 10 safty measurements
- DC switch disconnector
- IP65 dust-proof and water-proof rating
- 45°C full-load output
- Wide range of input voltage

Easy Operation

- User-friendly Large LCD
- Wireless monitoring and communication
- Voice control operation
- Fanless low-noise design
- 3 selectable apperance colors

DS (Dual-MPPT Single-phase) Series

The DS series has created a new standard for inverter technology with more advanced reactive compensation technology and dual MPP trackers. The new series has a wide range of domestic applications. Aside from being compatible with most solar panel brands, it also meets the demands of easy installation and simple operation for indoor and outdoor use. Despite its ultra light-weight structure, it meets the IP65 protective class. Our unique dual MPP trackers and low THDi make DS series the best choice for users to build up perfect photovoltaic systems.

Technical Data

		GW3600-DS	GW4200-DS	GW4600-DS
DC Input Data	Max. PV-generator power [W]	3800	4600	5400
	Max. DC voltage [V]	580		
	MPPT voltage range [V]	125~550		
	Turn on DC voltage [V]	125		
	Max. DC work current [A]	2*10	2*15	2*15
	Number of inputs/MPP trackers	4/2 (can parallel)		
	DC connector	MC IV Connector		
	Standby power consumption [W]	5		
AC Output Data	Nominal AC power [W]	3600	4200	4600
	Max. AC power [W]	3600	4400	5100
	Max. AC current [A]	18	21	25
	Nominal output voltage range	According to VDE-AR-N 4105, VDE 0126-1-1/A1, RD1699, ENEL, G59/2, AS4777.2/.3		
	AC grid frequency	According to VDE-AR-N 4105, VDE 0126-1-1/A1, RD1699, ENEL, G59/2, AS4777.2/.3		
	THDi	<1.5%		
	Power factor	0.95 leading…0.95 lagging		
	AC connector	Single phase		
Efficiency	Max. efficiency	97.6%	97.8%	97.8%
	European efficiency	>97.0%	>97.4%	>97.4%
	MPPT adaptation efficiency	>99.5%		
Safety Equipment	Leakage current monitoring unit	Integrated		
	DC switch	Optional		
	Islanding protection	AFD		
	Grid monitoring	According to VDE-AR-N 4105, VDE 0126-1-1/A1, RD1699, CEI 0-21, G59/2, AS4777.2/.3		
Normative Reference	EMC compliance	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		
	Safety compliance	According to IEC62109-1, AS3100		
General Data	Dimensions (WxHxD) [mm]	390*417*165		
	Net weight [kg]	20		
	Housing	For outdoor and indoor		
	Mounting information	Wall mounting		
	Operating temperature range	-20~60°C (up 45°C derating)		
	Relative humidity	0~95%		
	Site altitude [m]	2000		
	IP protection class	IP65		
	Topology	Transformerless		
	Cooling concept	Natural convection		
	Noise level [dB]	<25		
	Display	4 LCD		
	Communication	USB2.0 ; RS485 [Wireless(ZigBee) optional]		
	Standard warranty [years]	5/10/15/20/25(optional)		

High Performance

- Maximum Efficiency up to 98.2%
- European Efficiency up to 97.4%
- MPPT Efficiency over 99.5%

Hight Safety and Reliability

- DC switch disconnector
- IP65 dust-proof and water-proof rating
- 45°C full-load output

Easy Monitoring and Maintenance

- Super large 5-inch LCD
- 30% lighter than similar products
- Multiple monitoring and communication up to 800 pieces can be integrated in one system

DT (Dual-MPPT Three-phase) Series

The DT series adopts cutting-edge technology in photovoltaic fields. Higher conversion efficiency and lower energy loss are guaranteed to maximize customer satisfaction. With its reliable power grid support management and high protective class, the DT series is compatible with most branded solar panels and is also ideal for commercial rooftop systems. This safe and reliable series is the first choice for commercial installations and power plants.

Technical Data

		GW6K-DT	GW10K-DT	GW12K-DT	GW15K-DT	GW17K-DT
DC Input Data	Max. PV-generator power [W]	6200	10200	12300	15400	17500
	Max. DC voltage [V]	1000				
	MPPT voltage range [V]	260~850				
	Turn on DC voltage [V]	250				
	Max. DC work current [A]	11/11	22/11	22/11	22/22	22/22
	Number of inputs/MPP trackers	2 (can parallel)	2	2	2 (can parallel)	2 (can parallel)
	DC connector	MC IV Connector				
	Standby power consumption [W]	10				
AC Output Data	Nominal AC power [W]	6000	10000	12000	15000	17000
	Max. AC power [W]	6000	10000	12000	15000	17000
	Max. output current [A]	10	17	19	25	25
	Nominal ACt voltage range	According to VDE-AR-N 4105, VDE 0126-1-1/A1, RD1699, ENEL, G83/1, G59/2, AS4777.2/.3				
	AC grid frequency	According to VDE-AR-N 4105, VDE 0126-1-1/A1, RD1699, ENEL, G83/1, G59/2, AS4777.2/.3				
	THDi	<1.5%				
	Power factor	0.90 leading…0.90 lagging				
	AC connector	3/N/PE, 230/400V				
Efficiency	Max. efficiency	98.0%	98.0%	98.0%	98.2%	98.2%
	European efficiency	>97.5%				
	MPPT adaptation efficiency	>99.5%				
Safety Equipment	Leakage current monitoring unit	Integrated				
	DC switch	Optional				
	Islanding protection	AFD				
	Grid monitoring	According to VDE-AR-N 4105, VDE 0126-1-1/A1, RD1699, CEI 0-21, G83/1, G59/2, AS4777.2/.3				
Normative Reference	EMC compliance	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4				
	Safety compliance	According to IEC 62109-1, As3100, CNCA/CTS0004-2009A				
General Data	Dimensions (WxHxD) [mm]	516*650*203				
	Net weight [kg]	32	39	39	39	39
	Housing	For outdoor and indoor				
	Mounting information	Wall mounting				
	Operating temperature range	-20~60°C (up 45°C derating)				
	Relative humidity	0~95%				
	Site altitude [m]	2000				
	IP protection class	IP65				
	Topology	Transformerless				
	Cooling concept	Fan cooling				
	Noise level [dB]	<45				
	Display	5 LCD				
	Communication	USB2.0; RS485 [Wireless(ZigBee)/Ethernet optiona]				
	Standard warranty [years]	5/10/15/20/25(optional)				

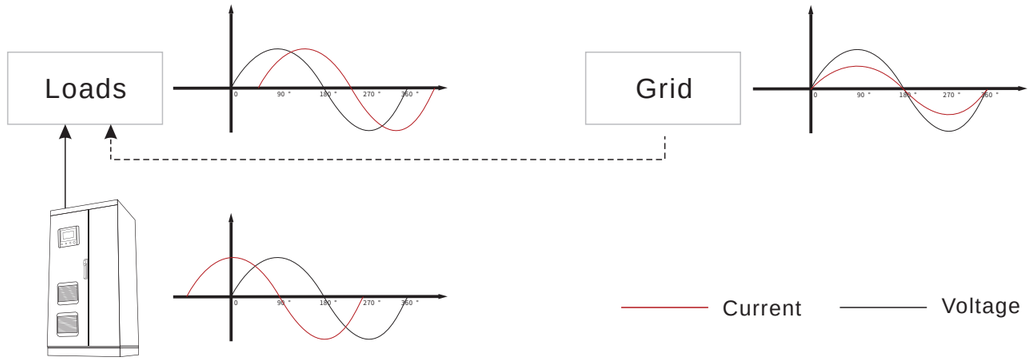
MOST VALUED

For Utility PV System

MT Series

Core features

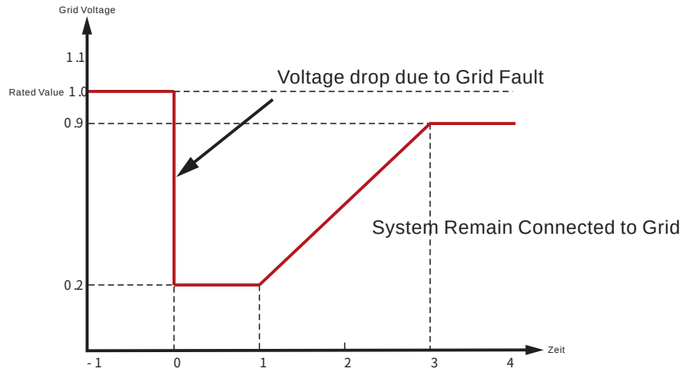
Static Var Generator (SVG) Technology



Reactive current from gird side is required when loads on site present inductive ¢apacitive character ,resulting in reactive power loss .Reactive power is also required in solar generation system to ensure the stability of grid voltage .GoodWe inverter can export 25% of rated power as reactive power during electricity generation under rated power; it can also be fully turned into SVG mode if necessary .

Low -voltage ride through (LVRT) Technology

GoodWe inverter LVRT technology can keep the system remain connected to the grid during and after voltage drop due to grid fault or disturbance ,which can effectively reduce the influence of sudden voltage drop on PV system generation .



Special Function

- Advanced LVRT capability
- New solution of islanding protection

Superior Performance

- Transformer electric isolation design
- THDi less than 1% under rated power
- MPPT efficiency up to 99 5%

High Reliability and Stability

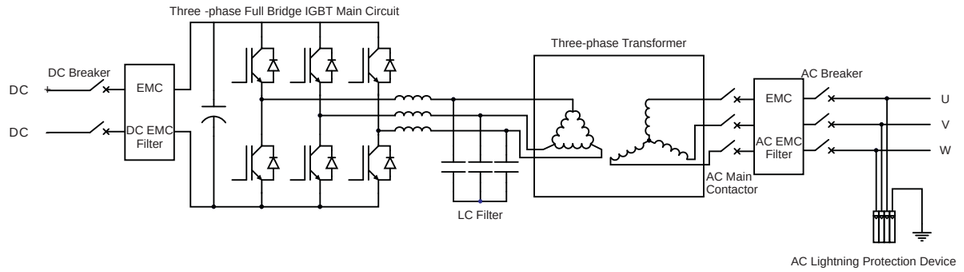
- Excelent industry design philosophy
- Components from industry-leading supplier
- Wonderful monitoring and control technology
- Rigorous test and quality control

GW100K-MT

GoodWe central GW100K -MT inverters have wide application in commercial and industrial rooftop projects and small /middle size commercial solar power plants .The inverter adopts mature transformer isolation technology which minimizes output DC component effectively; advanced LVRT technology can meet any requirement of power plant grid integration ,the products can be installed and applied in all types of grid network .At the mean while ,the harsh quality testing and production system of the company provide strongest safeguard for 'GoodWe quality ' product stability and reliability.

Technical Data

		GW100K-MT
DC Input Data	Max. PV-generator power [kW]	110
	Max. DC voltage [V]	880
	Max. DC current [A]	250
	MPPT voltage range[V]	450~820
	Max. Input numbers	3
	Night power consumption [W]	<30
AC Output Data	Nominal output power [kW]	100
	Nominal output voltage (Line Voltage) [V]	400
	Grid voltage range (Line Voltage) [V]	310~450
	Rated output current [A]	150
	Max. output current [A]	165
	Nominal grid frequency [Hz]	50/60
	Grid frequency range [Hz]	47.5~52.5/57~63
	THDi	<1%
Efficiency	Max. efficiency	97.1%
	European efficiency	96.4%
	MPPT adaptation efficiency	>99.5%
General Data	Dimensions (W*H*D) [mm]	1010*2005*800
	Net Weight [kg]	970
	Housing	Indoor
	Operating temperature range	-25~55°C
	Relative humidity	0~95%
	IP protection class	IP20
	Topology	Transformer electric isolation
	Cooling concept	Forced air-cooling
	Communication	RS485(Ethernet/GPRS Optional)
	Display	7 LCD Touch Screen
	Standard Warranty [years]	2 (can be extended to 25 years)



Special Function

- SVG Function
- New solution of islanding protection
- Advanced LVRT capability

Superior Performance

- Transformer electric isolation design
- Wide range of DC voltage input

Reliability and Stability

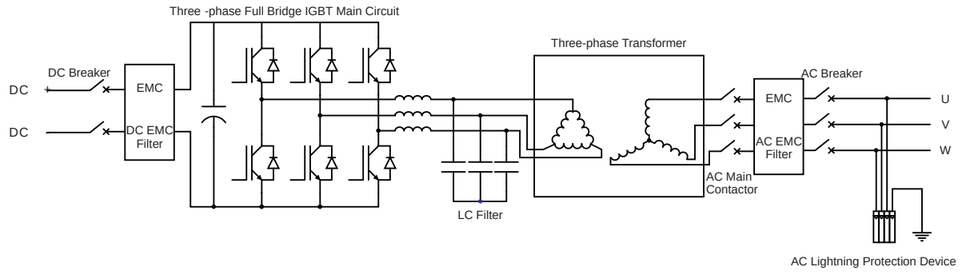
- Rigorous test and quality control
- Comply with international standards

GW250K-MT

GoodWe central GW250K -MT inverters have wide application in commercial and industrial rooftop projects and medium -to -large -scale commercial solar power plants . The inverter adopts transformer electric isolation design ,DC output component control which can meet the customer requirement perfectly on gird side .Sophisticated inverter control technique and industrial grade design ensure 25 years service life of the product .

Technical Data

		GW250K-MT
DC Input Data	Max. PV-generator power [kW]	275
	Max. DC voltage [V]	880
	Max. DC current [A]	600
	MPPT voltage range[V]	450~820
	Max. Input numbers	6
	Night power consumption [W]	<100
AC Output Data	Nominal output power [kW]	250
	Nominal output voltage (Line Voltage) [V]	400
	Grid voltage range (Line Voltage) [V]	310~450
	Rated output current [A]	380
	Max. output current [A]	418
	Nominal grid frequency [Hz]	50/60
	Grid frequency range [Hz]	47.5~52.5/57~63
	THDi	<1%
Efficiency	Max. efficiency	97.3%
	European efficiency	96.5%
	MPPT adaptation efficiency	>99.5%
General Data	Dimensions (W*H*D) [mm]	2110*2165*800
	Net Weight [kg]	2100
	Housing	Indoor
	Operating temperature range	-25~55°C
	Relative humidity	0~95%
	IP protection class	IP20
	Topology	Transformer electric isolation
	Cooling concept	Forced air-cooling
	Communication	RS485(Ethernet/GPRS Optional)
	Display	7 LCD Touch Screen
	Standard Warranty [years]	2 (can be extended to 25 years)



Special Function

- Advanced LVRT capability
- SVG reactive power compensation
- Active power linear control

Superior Performance

- Maximum efficiency up to 98 8%
- THDi less than 1% under rated power
- Wide range of input voltage

High Reliability and stability

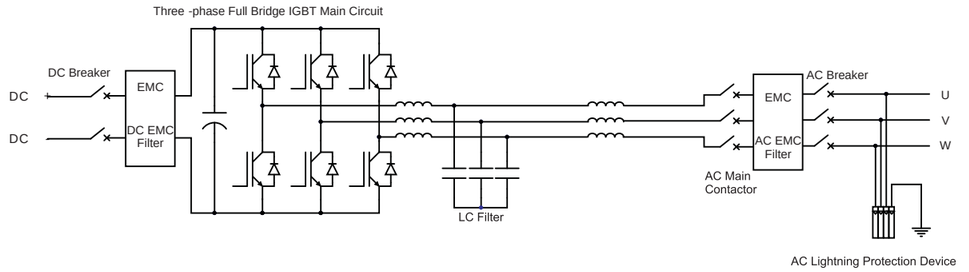
- Excelent industrial design philosophy
- Superior components integrated
- Rigorous test and quality control

GW500K-MTL

GoodWe central GW500K-MTL solar inverter is widely used in large-scale solar power plants. As core equipment in solar power station, its stability and reliability play an important role in long-term investment returns. GW500K-MTL solar inverter adopts industrial design philosophy as well as proven inverter control technology. In terms of solar plants grid integration, GoodWe solar inverter is also equipped with output power liner control, SVG reactive power compensation technology, LVRT capability and other advanced technologies which are apt to grid integration and management. In addition, its lower THDi output and higher conversion efficiency provide stronger support to green and efficient power plants operation.

Technical Data

		GW500K -MTL
DC Input Data	Max. PV-generator power [kW]	550
	Max. DC voltage [V]	880
	Max. DC current [A]	1200
	MPPT voltage range[V]	450~820
	Max. Input numbers	10
	Night power consumption [W]	<100
AC Output Data	Nominal output power [kW]	500
	Nominal output voltage (Line Voltage) [V]	270
	Grid voltage range (Line Voltage) [V]	310~450 (Equipped with 270/400 tranformer)
	Rated output current [A]	1070
	Max. output current [A]	1177
	Nominal grid frequency [Hz]	50/60
	Grid frequency range [Hz]	47.5~52.5/57~63
	THDi	<1%
Efficiency	Max. efficiency	98.8%
	European efficiency	98.6%
	MPPT adaptation efficiency	>99.5%
General Data	Dimensions (W*H*D) [mm]	2610*2165*800
	Net Weight [kg]	2000
	Housing	Indoor
	Operating temperature range	-25~55°C
	Relative humidity	0~95%
	IP protection class	IP20
	Topology	Transformerless
	Cooling concept	Forced air-cooling
	Communication	RS485(Ethernet/GPRS Optional)
	Display	7 LCD Touch Screen
	Standard Warranty [years]	2 (can be extended to 25 years)



- Up to 800 inverters supported
- Up to 1 200m transmission distance
- Up to 5 years data preservation
- All-in-One function :real-time monitoring , data collection, analysis and management

Monitoring System

We supply different monitoring devices . EzMonitor & EzBee are wireless ZigBee) which are mainly for resdential use .

EzLogger can effectively improve the stability and reliability of commercial power station systems with its powerful monitoring, data storage and diagnostic processing. EzLogger features easy operation and powerful functions, deeply favored by our customers. Each EzLogger can support up to 50 inverters in connection while EzExplorer software can monitor 16 EzLoggers at the same time, satisfying large-scale monitoring requirements. It supports long-distance connection with inverters, which is especially convenient for commercial power station management. Its long-term data preservation is suitable for system analyzing and optimization.

EzMonitor-Wireless Monitoring Device

EzBee-Wireless Monitoring Device

EzLoggor-Wired Monitoring Device

Communication	Inverter communication	RS485
	PC communication	10/100 Mbit Ethernet
	Modem	GSM (optional)
	Data interface	RJ45 (RS485+Ethernet), RS232, USB2.0
Maximum Number Supported	RS485/Ethernet/Wireless(EzBee)	50 units
Maximum Communication Distance	RS485 [m]	1200
	Ethernet [m]	100
	Wireless(EzBee)[m]	1600
Power Supply	Power supply	External adapter
	Input voltage [V]	100-270V AC; 50/60Hz
	Power consumption [W]	<5
Environmental Conditions in Operation	Ambient temperature	-20~60°C
	Relative humidity(non-condensing)	5%~95 %
Memory	Internal	128MB in a ring buffer configuration
	External	Mini SD card 512MB (1G /2G optional)
General Data	Dimensions (WxHxD) [mm]	150*100*43.5
	Weight [kg]	0.5
	Mounting location	Indoor
	Installation options	Wall mounting
	Status display	LED indicator
	Warranty [years]	5
	Certificates and approvals	CE

EzExplorer-Monitoring Software

Language	Chinese English
System software requirement	Windows XP, Windows Vista, Windows 7
Minimum hardware requirement	Processor P III 800MHz, RAM 512MB, HDD Space 500MB
Optimum resolution	1024*768
Monitoring information	inverter list, annual yield, monthly yield and daily yield, invetrer AC voltage, AC current, DC voltage, DC current, device temperature, total generation, error message, AC frequency, AC power, same day power curve & same month generation histogram
Historical data report	Historical data report &error message review and export
Maximum number of EzLogger connected	16
Number of monitored inverter through USB	1

In GoodWe customer service excellence is integrated into our enterprise culture, accepted and implemented conscientiously by our staff.

Service Targets:

- Putting customers at the center of everything we do
- Assisting customers to enhance their operation effectiveness and efficiency
- Assisting customers to establish competitive advantage
- Assisting customers to train their own technical experts

Customer Service

1.Service Hotline

GoodWe provides all kinds of solutions for system design, installation and maintainance, together with online technical support and fault analysis.

2.Backup Machines & Spare Parts

GoodWe provides backup machines and spare parts for customers, and covers all shipping cost to ensure the customers' commitment to end users.

3.Warranty

5 years standard warranty period, Customers can choose to extend warranty from 5 years. Within the warranty period, GoodWe provides repair or replacement services for free.

Charges applied according to maintenance cost when product is out of warranty.

4.Product Quality and Liability Insurance

All products are insured by international insurance company to fully protect customers' right.

5.Bonded Warehonse

GoodWe buildsup bonded warehouses

world-wide, to fully meet the quick delivery demands.

6.Professional Technical Team

GoodWe has senior technical team for both solar industry and system integration, and is always ready to provide professional consulting service in terms of project investment, construction and solar project processing, so that our customers can achieve abundant profits from their investments.

7.GoodWe Solar Academy

GoodWe Solar Academy is a most important department of the company. Our professional trainers give our customers the most comprehensive training for installation, maintenance as well as problem solving, in addition, we also provide our customers the last industry news from time to time.