
GOODWE
YOUR SOLAR ENGINE
Smart Photovoltaic
Inverter Series
GOODWE POWER SUPPLY TECHNOLOGY CO.,LTD.

GOODWE
COMPANY PROFILE

GoodWe is a leading, strategically-thinking enterprise which focuses on research and manufacturing of PV inverters and energy storage solutions. With an average monthly sales volume of 30,000 pieces in 2018 and 12 GW installed in more than 100 countries, GoodWe solar inverters have been largely used in residential and commercial rooftops, industrial and utility scale systems, ranging from 0.7kW to 80kW. GoodWe inverters offer reliable operation and excellent performance and are well recognized by customers worldwide. GoodWe's philosophy is to always create win-win partnerships with customers by identifying and integrating the most advanced components and techniques available while offering an unparalleled after-sales service.

Technological innovation is GoodWe's main core competence. With an in-house R&D team of 200 employees in two R&D centers, GoodWe can offer a comprehensive portfolio of products and solutions for residential, commercial and utility scale PV systems, ensuring that performance and quality go hand-in-hand across the entire range.

GoodWe has set up an integrated service system for pre-sale, in-sale and after-sale and has established service centers worldwide, aiming to offer global support to all customers including project consulting, technical training, on-site support and after-sales service.

130 Patents

3 R&D Centers

200 R&D Staff

GOODWE
PRODUCTION CAPACITY

IN 2019

12 Modern Production Lines

2 Plants (Suzhou & Guangde)

15 Hectare Lands

8 GW Production Capacity

50% Automation

TÜVRheinland®
Precisely Right.
ALL QUALITY MATTERS AWARD
2015-2017

NO.6
Bloomberg NEW ENERGY FINANCE
2017

NO.8
IHS Markit
2017

EUPD RESEARCH
TOP BRAND PV
INVERTERS
AUSTRALIA
2019
2017-2019

reddot Design
2018

GOODWE MILESTONE

2010

- Establishment

2011

- R&D Initiation

2012

- GW4000-SS PHOTON AA award.
- Efficiency World Top 3

2013

- GW17K-DT PHOTON AA award.
- Efficiency World Top 5

2014

- Launch of ES Series
- GoodWe UK setup
- Holland Service Center setup

2015

- GoodWe Australia Setup
- Strategic Partnership with BYD & TÜV Rheinland

2016

- TÜV Rheinland Quality Award
- Launch SEMS
- Displayed in IKEA across EU

2017

- TÜV Rheinland Quality Award
- Shenzhen R&D center Setup
- India service team Setup
- Ranked Top 6 by Bloomberg, Top 8 by IHS

2018

- TÜV Rheinland Quality Award
- GoodWe Europe GmbH Setup
- Service setup in Mexico & Brazil

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GOODWE INVERTER PORTFOLIO

01

XS Series

DNS Series

For residential application in countries where subsidies are provided or the cost of electricity is high

02

SDT G2 Series

Smart DT Series

For small-sized three phase residential and commercial rooftop application in countries where subsidies are provided or the cost of electricity is high

03

SMT Series

MT Series

Suitable for large commercial, ground-mounted and utility scale projects

04

DSS Series

ET Series

For residential energy storage application in countries where subsidies are not provided and the cost of electricity is high or power outages are common

Bring The Sun Home

XS Series

Single-MPPT, Single-Phase

- A4 size
- Light weight
- 30% DC oversizing
- 97% European efficiency
- LAN/WIFI communication

The brand new XS model from GoodWe is an ultra-small residential solar inverter specifically designed to bring comfort and quiet operation as well as high efficiency to households. Its capacity ranges from 0.7kW to 3.0kW and its most outstanding characteristic is light weight, which is only 5.8kg and as well as its extremely compact size equivalent to an A4 paper, that make it particularly easy to carry & install. Remarkably, it offers a 30% of DC input oversizing and its able to achieve a maximum European Efficiency of 97%. Conveniently, the communications options available on this inverter are both LAN & Wifi.

Technical Data	GW700-XS	GW1000-XS	GW1500-XS	GW2000-XS	GW2500-XS	GW3000-XS
PV String Input Data						
Max. DC Input Power (W)	910	1300	1950	2600	3250	3900
Max. DC Input Voltage (V)	500	500	500	500	500	500
MPPT Range (V)	40~450	40~450	40~450	40~450	40~450	40~450
Start-up Voltage (V)	50	50	50	50	40	40
Nominal DC Input Voltage (V)	360	360	360	360	360	360
Max. Input Current (A)	11	11	11	11	12.5	12.5
Max. Short Current (A)	13.8	13.8	13.8	13.8	15.6	15.6
No. of MPP Trackers	1	1	1	1	1	1
No. of Input Strings per Tracker	1	1	1	1	1	1
AC Output Data						
Nominal Output Power (W)	700	1000	1500	2000	2500	3000
Max. Output Apparent Power (VA)	800	1100	1650	2200	2750	3300
Nominal Output Voltage (V)	230	230	230	230	230	230
Nominal Output Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60
Max. Output Current (A)	3.5	4.8	7.2	9.6	12	14.3
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)					
Output THDi (@Nominal Output)	<3%	<3%	<3%	<3%	<3%	<3%
Efficiency						
Max. Efficiency	97.2%	97.2%	97.3%	97.5%	97.4%	97.4%
European Efficiency	96.0%	96.4%	96.6%	97.0%	97.0%	97.0%
Protection						
Anti-Islanding Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Input Reverse Polarity Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Insulation Resistor Detection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Residual Current Monitoring Unit	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Output Short Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
General Data						
Operating Temperature Range (°C)	-25~60	-25~60	-25~60	-25~60	-25~60	-25~60
Relative Humidity	0~100%	0~100%	0~100%	0~100%	0~100%	0~100%
Operating Altitude (m)	≤4000	≤4000	≤4000	≤4000	≤4000	≤4000
Cooling	Natural Convection					
Noise (dB)	<25	<25	<25	<25	<25	<25
User Interface	LCD & LED	LCD & LED	LCD & LED	LCD & LED	LCD & LED	LCD & LED
Communication	WiFi or LAN	WiFi or LAN	WiFi or LAN	WiFi or LAN	WiFi or LAN	WiFi or LAN
Weight (kg)	5.2	5.2	5.2	5.2	5.2	5.2
Size (Width*Height*Depth mm)	295*230*113	295*230*113	295*230*113	295*230*113	295*230*113	295*230*113
Protection Degree	IP65	IP65	IP65	IP65	IP65	IP65
Night Self Consumption (W)	<1	<1	<1	<1	<1	<1
Topology	Transformerless					
Certifications & Standards						
Grid Regulation	VDE0126-1-1, EN50438(PL), IEC61727, IEEE1547, G98, ABNT NBR 16149 : 2013					
Safety Regulation	IEC62109-1&-2					
EMC	EN61000					

Color Options

Inverters Designed For Beautility

DNS Series

Dual-MPPT, Single-Phase

- Lowest startup voltage at 120V
- Wide range of MPPT voltage
- Small, lightweight and easy to install
- Built-in anti-reverse function
- IP65 dustproof and waterproof
- Fanless and noiseless

GoodWe DNS series is a perfect match for residential installations thanks to its compact size and light weight. Manufactured for durability and longevity under modern industrial standards, GoodWe DNS series is IP65 rated so it can be mounted either inside or outside your home. With a low start-up voltage of only 120V and the widest voltage range of 80-550V, these inverters can provide greater options for your household system. The GoodWe DNS series is also extremely light, 30% lighter than other inverters.

Technical Data	GW3000D-NS	GW3600D-NS	GW4200D-NS	GW5000D-NS	GW6000D-NS
PV String Input Data					
Max. DC Input Power (W)	3900	4680	5460	6500	7200
Max. DC Input Voltage (V)	600	600	600	600	600
MPPT Range (V)	80~550	80~550	80~550	80~550	80~550
Start-up Voltage (V)	120	120	120	120	120
Nominal DC Input Voltage (V)	360	360	360	360	360
Max. Input Current (A)	11/11	11/11	11/11	11/11	11/11
Max. Short Current (A)	13.8/13.8	13.8/13.8	13.8/13.8	13.8/13.8	13.8/13.8
No. of MPP Trackers	2	2	2	2	2
No. of Input Strings per Tracker	1	1	1	1	1
AC Output Data					
Nominal Output Power (W)	3000*[1]	3680*[1]	4200*[1]	5000*[1]	6000*[1]
Max. Output Apparent Power (VA)	3000	3680	4200	5000	6000
Nominal Output Voltage (V)	220/230	220/230	220/230	220/230	220/230
Nominal Output Frequency (Hz)	50/60	50/60	50/60	50/60	50/60
Max. Output Current (A)	13.6	16	19	22.8	27.3
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)				
Output THDi (@Nominal Output)	<3%	<3%	<3%	<3%	<3%
Efficiency					
Max. Efficiency	97.8%	97.8%	97.8%	97.8%	97.8%
European Efficiency	97.5%	97.5%	97.5%	97.5%	97.5%
Protection					
Anti-Islanding Protection	Integrated	Integrated	Integrated	Integrated	Integrated
Input Reverse Polarity Protection	Integrated	Integrated	Integrated	Integrated	Integrated
Insulation Resistor Detection	Integrated	Integrated	Integrated	Integrated	Integrated
Residual Current Monitoring Unit	Integrated	Integrated	Integrated	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated	Integrated	Integrated	Integrated
Output Short Protection	Integrated	Integrated	Integrated	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated	Integrated	Integrated	Integrated
General Data					
Operating Temperature Range (°C)	-25~60	-25~60	-25~60	-25~60	-25~60
Relative Humidity	0~100%	0~100%	0~100%	0~100%	0~100%
Operating Altitude (m)	≤4000	≤4000	≤4000	≤4000	≤4000
Cooling	Natural Convection				
Noise (dB)	<25	<25	<25	<25	<25
User Interface	LCD & LED	LCD & LED	LCD & LED	LCD & LED	LCD & LED
Communication	RS485 or WiFi or LAN	RS485 or WiFi or LAN	RS485 or WiFi or LAN	RS485 or WiFi or LAN	RS485 or WiFi or LAN
Weight (kg)	13	13	13	13	13.5
Size (Width*Height*Depth mm)	354*433*147	354*433*147	354*433*147	354*433*147	354*433*147
Protection Degree	IP65	IP65	IP65	IP65	IP65
Night Self Consumption (W)	<1	<1	<1	<1	<1
Topology	Transformerless				
Certifications & Standards					
Grid Regulation	VDE-AR-N 4105, VDE0126-1-1 EN50438(PL), EN50438(SW), AS4777.2, G83, IEC61727, IEC62116, CEI 0-21, RD 1699:2011 , UNE 206006 IN: 2011 , UNE 206007-1 IN: 2013		VDE-AR-N 4105, VDE0126-1-1, EN50438(PL), EN50438(SW), AS4777.2, G59, IEC61727, IEC62116, CEI 0-21, RD 1699:2011 , UNE 206006 IN: 2011 , UNE 206007-1 IN: 2013	VDE-AR-N 4105, VDE0126-1-1, EN50438(PL), EN50438(SW), AS4777.2, G59, IEC61727, MEA, PEA, IEC62116, CEI 0-21, RD 1699:2011 , UNE 206006 IN: 2011 , UNE 206007-1 IN: 2013	VDE-AR-N 4105, VDE0126-1-1, EN50438(PL), EN50438(SW), AS4777.2, G59, IEC61727, MEA, PEA, IEC62116, CEI 0-21
Safety Regulation	IEC62109-1&-2				
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29				

*[1]: For CEI 0-21 Nominal Output Power GW3000D-NS is 2700, GW3680D-NS is 3350, GW4200D-NS is 3800, GW5000D-NS is 4540, GW6000D-NS is 5450. For AS4777, Nominal Output Power GW5000D-NS is 4999.

Color Options

Small, But Powerful

SDT G2 Series

Dual-MPPT, Three-Phase

- Highest efficiency up to 98.3%
- Compatiable with bifacial modules
- 50% DC oversizing
- 10% AC overloading
- Arc-fault circuit interrupter

The inverter SDT G2 from GoodWe is one of the best options available on the residential & commercial markets thanks to its technical strengths that make it one of the most efficient in the market. Its high efficiency (98.3%), its enhanced oversizing & overloading capabilities and the fact that it does not require a null line for installation represents an outstanding improvement in the industry.

Technical Data	GW4K-DT	GW5K-DT	GW6K-DT	GW8K-DT	GW10KT-DT
PV String Input Data					
Max. DC Input Power (Wp)	6000	7500	9000	12000	15000
Max. DC Input Voltage (V)	1000	1000	1000	1000	1000
MPPT Range (V)	180~850	180~850	180~850	180~850	180~850
Start-up Voltage (V)	160	160	160	160	160
Max. Input Current (A)	12.5/12.5	12.5/12.5	12.5/12.5	12.5/12.5	12.5/12.5
Max. Short Current (A)	15.6/15.6	15.6/15.6	15.6/15.6	15.6/15.6	15.6/15.6
No. of MPP Trackers	2	2	2	2	2
No. of Input Strings Per MPP Tracker	1/1	1/1	1/1	1/1	1/1
AC Output Data					
Nominal Output Power (W)	4000	5000	6000	8000	10000
Max. Output Apparent Power (VA)	4400	5500	6600	8800	11000
Nominal Output Voltage (V)	400, 3L/N/PE; 3L/PE(Optional)				
Nominal Output Frequency (Hz)	50/60	50/60	50/60	50/60	50/60
Max. Output Current (A)	6.4	8	9.6	12.8	16
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)				
Output THDi (@Nominal Output)	<3%	<3%	<3%	<3%	<3%
Efficiency					
Max. Efficiency	98.2%	98.2%	98.2%	98.2%	98.3%
European Efficiency	97.6%	97.6%	97.6%	97.6%	97.7%
Protection					
Anti-Islanding Protection	Integrated	Integrated	Integrated	Integrated	Integrated
Input Reverse Polarity Protection	Integrated	Integrated	Integrated	Integrated	Integrated
Insulation Resistor Detection	Integrated	Integrated	Integrated	Integrated	Integrated
DC Surge Protection	Integrated(Type III)	Integrated(Type III)	Integrated(Type III)	Integrated(Type III)	Integrated(Type III)
AC Surge Protection	Integrated(Type III)	Integrated(Type III)	Integrated(Type III)	Integrated(Type III)	Integrated(Type III)
Residual Current Monitoring Unit	Integrated	Integrated	Integrated	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated	Integrated	Integrated	Integrated
Output Short Protection	Integrated	Integrated	Integrated	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated	Integrated	Integrated	Integrated
Arc Fault Circuit Interrupter	Optional	Optional	Optional	Optional	Optional
Terminal Temperature Detection	Optional	Optional	Optional	Optional	Optional
General Data					
Operating Temperature Range (°C)	-30~60	-30~60	-30~60	-30~60	-30~60
Relative Humidity	0~100%	0~100%	0~100%	0~100%	0~100%
Operating Altitude (m)	≤4000	≤4000	≤4000	≤4000	≤4000
Cooling	Natural Cooling	Natural Cooling	Natural Cooling	Fan Cooling	Fan Cooling
Noise (dB)	<30	<30	<30	<30	<30
User Interface	LCD&LED	LCD&LED	LCD&LED	LCD&LED	LCD&LED
Communication	WiFi or LAN(Optional)	WiFi or LAN(Optional)	WiFi or LAN(Optional)	WiFi or LAN(Optional)	WiFi or LAN(Optional)
Weight (kg)	15	15	15	16	16
Size (Width*Height*Depth mm)	347*432*150	347*432*150	347*432*150	347*432*150	347*432*150
Protection Degree	IP65	IP65	IP65	IP65	IP65
Night Self Consumption (W)	<1	<1	<1	<1	<1
Topology	Transformerless				
Certifications & Standards					
Grid Regulation	VDE-AR-N 4105, IEC61727, IEC62116				
Safety Regulation	IEC62109-1&-2				
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4				

Maximize Your Power & Savings

SDT Series

Dual-MPPT, Three-Phase

- Easy wall mounting
- Super large 5-inch LCD
- RS485, LAN & Wi-Fi communication
- IP65 dustproof and waterproof

The GoodWe Smart DT series inverter is specially designed for three-phase solar systems, covering a wide power range of 12kW, 15kW, 17kW, 20kW. The two integrated MPPTs allows two-array inputs from different roof orientations.

The SDT series inverter is small, light and easy to install. Suitable for both outdoor and indoor installations, this inverter offers quiet operation. In addition, the combination of both RS485 and Wi-Fi communication allows the system to be easily monitored and controlled.

Technical Data	GW12KN-DT	GW15KN-DT	GW17KN-DT	GW20KN-DT
PV String Input Data				
Max. DC Input Power (W)	16800	19500	22100	26000
Max. DC Input Voltage (V)	1000	1000	1000	1000
MPPT Range (V)	200~850	200~850	200~950	200~950
Start-up Voltage (V)	180	180	180	180
Nominal DC Input Voltage (V)	620	620	600	600
Max. Input Current (A)	22/11	22/11	22/22	22/22
Max. Short Current (A)	27.6/13.8	27.6/13.8	27.5/27.5	27.5/27.5
No. of MPP Trackers	2	2	2	2
No. of Input Strings per Tracker	2/1	2/1	2/2	2/2
AC Output Data				
Nominal Output Power (W)	12000	15000	17000	20000
Max. Output Apparent Power (VA)	14000	16500	19000	22000
Nominal Output Voltage (V)	400, 3L/N/PE	400, 3L/N/PE	400, 3L/N/PE or 3L/PE	400, 3L/N/PE or 3L/PE
Nominal Output Frequency (Hz)	50/60	50/60	50/60	50/60
Max. Output Current (A)	21.5	24	28.8	31.9
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)			
Output THDi (@Nominal Output)	<2%	<2%	<2%	<2%
Efficiency				
Max. Efficiency	98.3%	98.3%	98.6%	98.6%
European Efficiency	>98.0%	>98.0%	>98.1%	>98.1%
Protection				
PV String Current Monitoring	Integrated	Integrated	Integrated	Integrated
Anti-Islanding Protection	Integrated	Integrated	Integrated	Integrated
Input Reverse Polarity Protection	Integrated	Integrated	Integrated	Integrated
Insulation Resistor Detection	Integrated	Integrated	Integrated	Integrated
Residual Current Monitoring Unit	Integrated	Integrated	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated	Integrated	Integrated
Output Short Protection	Integrated	Integrated	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated	Integrated	Integrated
DC SPD Protectioin	Integrated (Type III)	Integrated (Type III)	Integrated (Type III)	Integrated(Type III)
AC SPD Protection	Integrated (Type III)	Integrated (Type III)	Integrated (Type III)	Integrated(Type III)
General Data				
Operating Temperature Range (°C)	-25~60	-25~60	-25~60	-25~60
Relative Humidity	0~100%	0~100%	0~100%	0~100%
Operating Altitude (m)	≤4000	≤4000	≤4000	≤4000
Cooling	Natural Cooling	Natural Cooling	Fan Cooling	Fan Cooling
Noise (dB)	<40	<40	45	45
User Interface	LCD & LED	LCD & LED	LCD & LED	LCD & LED
Communication	RS485 or WiFi	RS485 or WiFi	RS485 or WiFi	RS486 or WiFi
Weight (kg)	26	26	26	26
Size (Width*Height*Depth mm)	516*455*192	516*455*192	516*455*220	516*455*220
Protection Degree	IP65	IP65	IP65	IP66
Night Self Consumption (W)	<1	<1	<1	<2
Topology	Transformerles			
Certifications & Standards				
Grid Regulation	VDE0126-1-1, EN50438(PL), VDE-AR-N 4105	VDE0126-1-1, AS4777.2, G83, IEC61727, IEC62116, EN50438(SW), EN50438(IR), CEI 0-21		
Safety Regulation	IEC62109-1&-2			
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29			

Compact and Powerful for Increased Efficiency

SMT Series

Three-MPPT, Three-Phase

- Compact and lightweight
- 30% DC input oversizing
- Up to 10% AC output overloading
- Wide MPPT range from 200 V to 950 V
- IP65 dustproof and waterproof

The brand new GoodWe SMT series inverter is ideal for medium and large-scale commercial rooftop installations, providing maximum efficiency of 98.8% and up to three MPPT routes for a particular environment. With its weight of just 40kg and compact design, the SMT series is easier to handle and install compared to similar inverters in the market. Featuring a maximum DC input voltage of 1100 V, wider MPPT range, and a start-up voltage of 180 V, the SMT series guarantees an earlier generation of power and a longer working time in order to maximize long-term returns and profitability for the system's owner.

Technical Data	GW25K-MT	GW30K-MT	GW36K-MT
DC Input Data			
Max. PV Power (W)	32500	39000	42900
Max. DC Input Voltage (V)	1100	1100	1100
MPPT Range (V)	200~950	200~950	200~950
Starting Voltage (V)	180	180	180
Nominal DC Input Voltage (V)	600	600	600
Max. Input Current (A)	25/25/25	25/25/25	25/25/25
Max. Short Current (A)	31.3/31.3/31.3	31.3/31.3/31.3	31.3/31.3/31.3
No. of MPP Trackers	3	3	3
No. of Input Strings per Tracker	2/2/2	2/2/2	2/2/2
AC Output Data			
Nominal Output Power (W)	25000	30000*[1]	36000*[4]
Max. Output Power (W)	27500	33000*[2]	36000
Max. Output Apparent Power (VA)	27500	33000*[3]	36000
Nominal Output Voltage (V)	400, 3L/N/PE or 3L/PE		
Nominal Ouput Frequency (Hz)	50/60	50/60	50/60
Max. Output Current (A)	40	48	53.3
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)		
Output THDi (@Nominal Output)	<3%	<3%	<3%
Efficiency			
Max. Efficiency	98.70%	98.80%	98.80%
European Efficiency	>98.4%	>98.5%	>98.5%
Protection			
Anti-Islanding Protection	Integrated	Integrated	Integrated
Input Reverse Polarity Protection	Integrated	Integrated	Integrated
PV String Current Monitoring	Integrated	Integrated	Integrated
Anti-PID Function for Module	Optional	Optional	Optional
Insulation monitoring	Integrated	Integrated	Integrated
DC SPD Protectioin	Optional (Type II)	Optional (Type II)	Optional (Type II)
AC SPD Protectioin	Optional (Type II)	Optional (Type II)	Optional (Type II)
Residual Current Monitoring Unit	Integrated	Integrated	Integrated
AC Over Current Protection	Integrated	Integrated	Integrated
AC Short Protection	Integrated	Integrated	Integrated
AC Over Voltage Protection	Integrated	Integrated	Integrated
General Data			
Ambient Temperature Range (°C)	-30~60	-30~60	-30~60
Relative Humidity	0~100%	0~100%	0~100%
Operating Altitude (m)	≤3000	≤3000	≤3000
Cooling	Fan Cooling	Fan Cooling	Fan Cooling
Display	LCD & LED or APP & LED		
Communication	RS485 or WiFi or GPRS or PLC (LCD); WiFi+RS485 or GPRS+RS485 (APP)		
Weight (kg)	40	40	40
Dimension (Width*Height*Depth mm)	480*590*200	480*590*200	480*590*200
Protection Degree	IP65	IP65	IP65
Night Self Consumption (W)	<1	<1	<1
Topology	Transformerles		
Certifications & Standards			
Grid Regulation	AS4777.2/VDE0126-1-1/VDE-AR-N 4105		
Safety Regulation	IEC62109-1&-2		
EMC Regulation	EN61000-6-1/EN61000-6-2/EN61000-6-3/EN61000-6-4		

*1: 29.99kW for Australia, 30kW for other country
*2: 29.99kW for Australia, 33kW for other country
*3: 29.99kVA for Australia, 33kVA for other country
*4: 33kWfor Italy, 36kW for other country

Boost Your Power & Profit

MT Series

Four-MPPT, Three-Phase

- 30% DC input oversizing ratio
- 15% AC output overloading ratio
- Smart monitoring for 13 strings
- Full-load running at 50ºC
- Integrated bussman fuse for panel protection

The second generation of GoodWe MT series inverter is suited for medium and large scale commercial rooftops and ground-mounted solar PV systems where maximum versatility and profitability are important. With its compact design and power boost function, the GoodWe MT G2 series can provide a 15% continuous maximum AC output power overload, offering a faster return on investment. The start-up voltage is 200V, much lower than 600V of other products, which makes the inverter start up earlier, therefore generating more power over time.

Technical Data	GW50K-MT	GW50KN-MT	GW60K-MT	GW60KN-MT	GW50KBF-MT	GW60KBF-MT	GW70KHV-MT	GW80KHV-MT	GW80KBF-MT
DC Input Data									
Max. PV Power (W)	65000	65000	80000	80000	65000	80000	91000	120000	104000
Max. DC Input Voltage (V)	1000	1100	1000	1100	1100	1100	1100	1100	1100
MPPT Range (V)	200~850	200~1000	200~850	200~1000	200~1000	200~1000	200~1000	200~1000	200~1000
Starting Voltage (V)	200	200	200	200	200	200	200	200	200
Nominal DC Input Voltage (V)	620	620	620	620	620	620	750	800	800
Max. Input Current (A)	30/30/20/20	33/33/22/22	30/30/30/30	33/33/33/33	30/30/30/30	44/44/44/44	33/33/33/33	44/44/44/44	39/39/39/39
Max. Short Current (A)	38/38/25/25	41.5/41.5/27.5/27.5	38/38/38/38	41.5/41.5/41.5/41.5	37.5/37.5/37.5/37.5	55/55/55/55	41.5/41.5/41.5/41.5	55/55/55/55	54.8/54.8/54.8/54.8
No. of MPP Trackers	4	4	4	4	4	4	4	4	4
No. of Input Strings per Tracker	3/3/2/2	3/3/2/2	3/3/3/3	3/3/3/3	2/2/2/2	3/3/3/3	3/3/3/3	4/4/4/4	3/3/3/3
AC Output Data									
Nominal Output Power (W)	50000	50000	60000	60000	50000	60000	70000	80000	80000
Max. Output Power (W)	55000; 57500@415Vac		66000; 69000@415Vac		55000;57500@415Vac	66000;69000@415Vac	77000	88000	88000
Max. Output Apparent Power (VA)	55000; 57500@415Vac		66000; 69000@415Vac		55000;57500@415Vac	66000;69000@415Vac	77000	88000	88000
Nominal Output Voltage (V)	400, 3L/N/PE or 3L/PE		400, 3L/N/PE or 3L/PE		400, 3L/N/PE or 3L/PE		500, 3L/PE	540, 3L/PE	540, 3L/PE
Nominal Ouput Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Max. Output Current (A)	80	80	96	96	80	96	89	94.1	94.1
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)								
Output THDi (@Nominal Output)	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%
Efficiency									
Max. Efficiency	98.7%	98.7%	98.8%	98.8%	98.8%	98.8%	99.0%	99.0%	99.0%
European Efficiency	98.3%	98.3%	98.5%	98.5%	98.3%	98.3%	98.4%	98.4%	98.4%
Protection									
PV String Current Monitoring	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Anti-Islanding Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Input Reverse Polarity Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Insulation monitoring	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
DC fuse	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Anti-PID Function for Module	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
DC SPD Protectioin	Integrated (Type II)								
AC SPD Protectioin	Integrated (Type II)								
Residual Current Monitoring Unit	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
AC Over Current Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
AC Short Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
AC Over Voltage Protection	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Arc Fault Circuit Interrupter	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
General Data									
Ambient Temperature Range (℃)	-30~60	-30~60	-30~60	-30~60	-30~60	-30~60	-30~60	-30~60	-30~60
Relative Humidity	0~100%	0~100%	0~100%	0~100%	0~100%	0~100%	0~100%	0~100%	0~100%
Operating Altitude (m)	≤4000	≤4000	≤4000	≤4000	≤4000	≤4000	≤4000	≤4000	≤4000
Cooling	Fan Cooling	Fan Cooling	Fan Cooling	Fan Cooling	Fan Cooling	Fan Cooling	Fan Cooling	Fan Cooling	Fan Cooling
Display	LCD or WiFi+APP								
Communication	RS485 or WiFi or PLC								
Weight (kg)	59	59	64	64	60	65	60	65	65
Dimension (Width*Height*Depth mm)	586*788*264	586*788*264	586*788*264	586*788*264	586*788*264	586*788*264	586*788*264	586*788*267	586*788*264
Protection Degree	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Night Self Consumption (W)	<1	<1	<1	<1	<1	<1	<1	<1	<1
Topology	Transformerless								
Certifications & Standards									
Grid Regulation	IEC61727, IEC62116, IEC60068, IEC61683, EN50530, EN50438+, VDE0126-1-1/A1, VDE-AR-N 4105, RD1699, RD661, RD413, UNE, AS/NZS 4777.2, DRRG/DEWA, NRS 097,G99	IEC61727, IEC62116, VDE4105, VDE0126, RD1699, RD413, RD661, EN50438, AS/NZS 4777.2, NRS 097, CEI 0-21, ERDF-NOI-RES_13E	IEC61727, IEC62116, IEC60068, IEC61683, EN50530, EN50438+, VDE0126-1-1/A1,VDE-AR-N 4105, RD1699, RD661, RD413, UNE, AS/NZS 4777.2, DRRG/DEWA, NRS 097,G99	IEC61727, IEC62116, VDE4105, VDE0126, RD1699, RD413, RD661, EN50438, AS/NZS 4777.2, NRS 097, CEI 0-21, ERDF-NOI-RES_13E, MEA,PEA	IEC61727, IEC62116, VDE4105, VDE0126, RD1699, RD413, RD661, EN50438	IEC61727, IEC62116, VDE4105, VDE0126, RD1699, RD413, RD661, EN50438	IEC61727, IEC62116, VDE4105, VDE0126, RD1699, RD413, RD661, EN50438	IEC61727, IEC62116, VDE4105, VDE0126, RD1699, RD413, RD661, EN50438	IEC61727, IEC62116, VDE4105, VDE0126, RD1699, RD413, RD661, EN50438
Safety Regulation	IEC62109-1&-2								
EMC Regulation	EN6100-6-4:2007+A1:2011, EN61000-6-2:2005, EN61000-3-11:2000, EN61000-3-12:2011+AC:2013								

When Technology Meets Art

EH Series

Dual-MPPT, Single Phase

- UPS automatic switch in 10ms
- Wide battery voltage range 85~450V
- Large loads when back-up
- Up to 20% overloading

The EH is the GoodWe's new single-phase, hybrid inverter compatible with high voltage batteries. It is available in power capacities of 3.6kW, 5kW and 6kW and outstandingly, can be connected to the wide range of lithium-ion batteries from 85V up to 450V, with an overloading capacity of 20%. It comes with an automatic UPS function that gets activated in 10ms. One of its most remarkable feature is that even when it is on back-up mode it can still supply power to large loads such as air conditioners. The EH weighs only 17kg, is always easy to install, allowing a strong profitability. It has a beautiful design and it is available in white color.

Technical Data	GW3600-EH	GW5000-EH	GW6000-EH
Battery Input Data*			
Battery Type	Li-Ion	Li-Ion	Li-Ion
Battery Voltage Range(V)	85~450	85~450	85~450
Start-up Voltage (V)	90	90	90
Max. Charging/Discharging Current (A)	25/25	25/25	25/25
Max. Charging/Discharging Power (W)	3600	5000	6000
Battery Ready Optional Function	YES	YES	YES
PV String Input Data			
Max. DC Input Power (W)	4800	6650	8000
Max. DC Input Voltage (V)	580	580	580
MPPT Range (V)	100~550	100~550	100~550
Start-up Voltage (V)	90	90	90
Nominal DC Input Voltage (V)	380	380	380
Max. Input Current (A)	12.5/12.5	12.5/12.5	12.5/12.5
Max. Short Current (A)	15.2/15.2	15.2/15.2	15.2/15.2
No. of MPP Trackers	2	2	2
No. of Strings per MPP Tracker	1	1	1
AC Output Data (On-grid)			
Nominal Apparent Power Output to Utility Grid (VA)	3600	4600/5000*2	4600/5000/6000*1
Max. Apparent Power Output to Utility Grid(VA)	3600/3960*5	4600/5000/5500*4	4600/5000/6000/6600*3
Max. Apparent Power from Utility Grid (VA)	7200 (Charging 3.6kw,backup output3.6kw)	10000 (Charging 5kw,backup output 5kw)	12000 (Charging 6kw,backup output 6kw)
Nominal Output Voltage (V)	230	230	230
Nominal Ouput Frequency (Hz)	50/60	50/60	50/60
Max. AC Current Output to Utility Grid (A)	16/18*9	21.7/24*8	21.7*6/26.1/28.7*7
Max. AC Current From Utility Grid (A)	32	43.4	52.2
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)		
Output THDi (@Nominal Output)	<3%	<3%	<3%
AC Output Data (Back-up)*			
Max. Output Apparent Power (VA)	3600	5000	6000
Peak Output Apparent Power (VA)	4320 ,60sec	6000 ,60sec	7200 ,60sec
Max. Output Current (A)	15.7	21.7	26.1
Automatic Switch Time (ms)	<10		
Nominal Output Voltage (V)	230 (±2%)	230 (±2%)	230 (±2%)
Nominal Ouput Frequency (Hz)	50/60 (±0.2%)	50/60 (±0.2%)	50/60 (±0.2%)
Output THDv (@Linear Load)	<3%	<3%	<3%
Efficiency			
PV Max. Efficiency	97.6%	97.6%	97.6%
PV Europe Efficiency	97.0%	97.0%	97.0%
PV Max. MPPT Efficiency	99.9%	99.9%	99.9%
Battery Charged By PV Max. Efficiency	98%	98%	98%
Battery Charge/discharge From/To AC Max. Efficiency	96.6%	96.6%	96.6%
Protection			
Anti-Islanding Protection	Integrated	Integrated	Integrated
Battery Input Reverse Polarity Protection	Integrated	Integrated	Integrated
Insulation Resistor Detection	Integrated	Integrated	Integrated
Residual Current Monitoring Unit	Integrated	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated	Integrated
Grid Output Short Protection	Integrated	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated	Integrated
General Data			
Operating Temperature Range (℃)	-35~60	-35~60	-35~60
Relative Humidity	0~95%	0~95%	0~95%
Operating Altitude (m)	4000	4000	4000
Cooling	Natural Convection		
Noise (dB)	<35	<35	<35
User Interface	LED & APP	LED & APP	LED & APP
Communication with BMS	CAN	CAN	CAN
Communication with Meter	RS485	RS485	RS485
Communicaiton with Portal	Wi-Fi/Ethernet(Optional)		
Weight (kg)	17	17	17
Size (Width*Height*Depth mm)	354*433*147	354*433*147	354*433*147
Mounting	Wall Bracket	Wall Bracket	Wall Bracket
Protection Degree	IP65	IP65	IP65
Standby Self Consumption (W)*10	<10	<10	<10
Topology	Transformerless		
Certifications & Standards			
Grid Regulation	AS/NZS 4777.2:2015; G98/1; CEI 0-21 VDE4105-AR-N	AS/NZS 4777.2:2015; G99/1; CEI 0-21;VDE4105-AR-N	
Safety Regulation	IEC/EN62109-1&-2		
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29		

*1 4600 for VDE-AR-N 4105, 4950 for AS/NZS 4777.2 feed in power limit,selfuse can reach 6000, 6000 for other country.
*2 4600 for VDE-AR-N 4105, 4950 for AS/NZS 4777.2, 5000 for other country.
*3 4600 for VDE-AR-N 4105, 4950 for AS/NZS 4777.2, 6600 for CEI 0-21, 6000 for other country.
*4 4600 for VDE-AR-N 4105, 4950 for AS/NZS 4777.2, 5500 for CEI 0-21, 5000 for other country.
*5 3960 for CEI 0-21, 3600 for other countries.
*6 21.7 for AS/NZS 4777.2 feed in power limit,selfuse can reach26.1.
*7 ,*8 ,*9 for CEI 0-21.
*10 No Back-up Output

*: An activation code is required when connecting to an approved Lithium-Ion Battery. It can be purchased from GoodWe's authorized dealers or distributors.
GoodWe only acknowledges the activation code purchased from our authorized dealers or distributors.
GoodWe's Smart Meter, an optional accessory, is able to monitor load consumption. It can be purchased through authorized dealers or distributors.

Declare Your Grid Independence

ET Series

Three-phase
Energy Storage Inverter

- Compact size & lightweight
- Maximum efficiency up to 98.2%
- Uninterruptible power supply
- Wide battery voltage range
- Fanless design, quiet operation

The brand new GoodWe ET series is a three-phase high voltage energy storage inverter that enables enhanced energy independence and maximizes self-consumption through export limit feature and time of use shifts for reduced electricity bills. Covering a power range of 5 kW, 8 kW and 10 kW, the ET series allows up to 100% overloading to maximize power output and features Uninterruptible Power Supply (UPS) to inductive loads such as air conditioners or refrigerators with an automatic switchover time of less than 10 milliseconds, providing grid-tied savings when the grid is up and off-grid independence and security when it is down or compromised.

Technical Data	GW5K-ET	GW8K-ET	GW10K-ET
Battery Input Data			
Battery Type	Li-Ion	Li-Ion	Li-Ion
Battery Voltage Range (V)	180~600	180~600	180~600
Max. Charging Current (A)	25	25	25
Max. Discharging Current (A)	25	25	25
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	Self-adaption to BMS	Self-adaption to BMS
PV String Input Data			
Max. DC Input Power (W)	6500	9600	13000
Max. DC Input Voltage (V)*	1000	1000	1000
MPPT Range (V)	200~850	200~850	200~850
Start-up Voltage (V)	180	180	180
Nominal DC Input Voltage (V)	620	620	620
Max. Input Current (A)	12.5/12.5	12.5/12.5	12.5/12.5
Max. Short Current (A)	15.2/15.2	15.2/15.2	15.2/15.2
No. of MPP Trackers	2	2	2
No. of Strings per MPP Tracker	1/1	1/1	1/1
AC Output Data (On-grid)			
Nominal Apparent Power Output to Utility Grid (VA)	5000	8000	10000
Max. Apparent Power Output to Utility Grid (VA)**	5500	8800	11000
Max. Apparent Power from Utility Grid (VA)	10000	15000	15000
Nominal Output Voltage (V)	400/380, 3L/N/PE		
Nominal Ouput Frequency (Hz)	50/60	50/60	50/60
Max. AC Current Output to Utility Grid (A)	8.5	13.5	16.5
Max. AC Current from Utility Grid (A)	15.2	22.7	22.7
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)		
Output THDi (@Nominal Output)	<3%	<3%	<3%
AC Output Data (Back-up)			
Max. Output Apparent Power (VA)	5000	8000	10000
Peak Output Apparent Power (VA)***	10000, 60sec	16000, 60sec	16500, 60sec
Max. Ouput Current (A)	8.5	13.5	16.5
Nominal Output Voltage (V)	400/380	400/380	400/380
Nominal Ouput Frequency (Hz)	50/60	50/60	50/60
Output THDv (@Linear Load)	<3%	<3%	<3%
Efficiency			
Max. Efficiency	98.0%	98.2%	98.2%
Max. Battery to Load Efficiency	97.5%	97.5%	97.5%
European Efficiency	97.2%	97.5%	97.5%
Protection			
Anti-Islanding Protection	Integrated	Integrated	Integrated
PV String Input Reverse Polarity Protection	Integrated	Integrated	Integrated
Insulation Resistor Detection	Integrated	Integrated	Integrated
Residual Current Monitoring Unit	Integrated	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated	Integrated
Output Short Protection	Integrated	Integrated	Integrated
Battery Input Reverse Polarity Protection	Integrated	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated	Integrated
General Data			
Operating Temperature Range (°C)	-35~60	-35~60	-35~60
Relative Humidity	0~95%	0~95%	0~95%
Operating Altitude (m)	≤4000	≤4000	≤4000
Cooling	Natural Convection		
Noise (dB)	<30	<30	<30
User Interface	LED & APP	LED & APP	LED & APP
Communication with BMS	RS485; CAN	RS485; CAN	RS485; CAN
Communication with Meter	RS485	RS485	RS485
Communication with EMS	RS485 (Insulated)		
Communicaiton with Portal	Wi-Fi	Wi-Fi	Wi-Fi
Weight (kg)	24	24	24
Size (Width*Height*Depth mm)	516*415*180	516*415*180	516*415*180
Mounting	Wall Bracket	Wall Bracket	Wall Bracket
Protection Degree	IP65	IP65	IP65
Standby Self-Consumption (W)****	<15	<15	<15
Topology	Transformerless		
Certifications & Standards			
Grid Regulation	CEI 0-21; VDE4105-AR-N; VDE0126-1-1; EN50438; G83/2; G100		
Safety Regulation	IEC62109-1&-2, IEC62040-1		
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29		

*: Maximum operating voltage is 950V.
**: According to the local grid regulation.
***: Can be reached only if PV and battery power is enough.
****: No Back-up Output.

Off The Grid
Not Powerless

ES Series

Hybrid Inverter

- Charge controller and inverter integrated
- Export control (Zero export)
- UPS function with 10 ms automatic switchover
- Maximum charge and discharge up to 100A
- IP65 dustproof and waterproof
- Fanless design, long lifespan

The GoodWe ES series bi-directional energy storage inverter can be used for both on-grid and off-grid PV systems, with the ability to control the flow of energy intelligently. During the day, the PV array generates electricity which can be provided either to the loads, fed into the grid or charge the battery, depending on the economics and set-up. The electricity stored can be released when the loads require it during the night, including inductive loads such as air conditioners or refrigerators. Additionally, the power grid can also charge storage devices via the inverter. An all-round intelligent system for maximum energy flexibility.

Technical Data	GW3648D-ES	GW5048D-ES
Battery Input Data		
Battery Type	Li-Ion or Lead-acid*1	Li-Ion or Lead-acid*1
Nominal Battery Voltage (V)	48	48
Max. Charging Voltage (V)	≤60 (Configurable)	≤60 (Configurable)
Max. Charging Current (A)*1	75	100
Max. Discharging Current (A)*1	75	100
Battery Capacity (Ah)*2	50~2000	50~2000
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	Self-adaption to BMS
PV String Input Data		
Max. DC Input Power (W)	4600	6500
Max. DC Input Voltage (V)	580	580
MPPT Range (V)	125~550	125~550
Start-up Voltage (V)*3	150	150
Nominal DC Input Voltage (V)	360	360
Max. Input Current (A)	11/11	11/11
Max. Short Current (A)	13.8/13.8	13.8/13.8
No. of MPP Trackers	2	2
No. of Strings per MPP Tracker	1	1
AC Output Data (On-grid)		
Nominal Apparent Power Output to Utility Grid (VA)	3680	4600
Max. Apparent Power Output to Utility Grid (VA)*4	3680	5100
Max. Apparent Power from Utility Grid (VA)	7360	9200
Nominal Output Voltage (V)	230	230
Nominal Output Frequency (Hz)	50/60	50/60
Max. AC Current Output to Utility Grid (A)	16	24.5*5
Max. AC Current From Utility Grid (A)	32	40
Output Power Factor	~1(Adjustable from 0.8 leading to 0.8 lagging)	
Output THDi (@Nominal Output)	<3%	<3%
AC Output Data (Back-up)		
Max. Output Apparent Power (VA)	3680	4600
Peak Output Apparent Power (VA)*6	5520,10sec	6900,10sec
Max. Output Current (A)	16	20
Nominal Output Voltage (V)	230 (±2%)	230 (±2%)
Nominal Output Frequency (Hz)	50/60 (±0.2%)	50/60 (±0.2%)
Output THDv (@Linear Load)	<3%	<3%
Efficiency		
Max. Efficiency	97.6%	97.6%
Max. Battery to Load Efficiency	94.0%	94.0%
European Efficiency	97.0%	97.0%
Protection		
Anti-Islanding Protection	Integrated	Integrated
PV String Input Reverse Polarity Protection	Integrated	Integrated
Insulation Resistor Detection	Integrated	Integrated
Residual Current Monitoring Unit	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated
Output Short Protection	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated
General Data		
Operating Temperature Range (°C)	-25~60	-25~60
Relative Humidity	0~95%	0~95%
Operating Altitude (m)	≤4000	≤4000
Cooling	Natural Convection	
Noise (dB)	<25	<25
User Interface	LED & APP	LED & APP
Communication with BMS*7	RS485; CAN	RS485; CAN
Communication with Meter	RS485	RS485
Communicaiton with Portal	Wi-Fi	Wi-Fi
Weight (kg)	28	30
Size (Width*Height*Depth mm)	516*440*184	516*440*184
Mounting	Wall Bracket	Wall Bracket
Protection Degree	IP65	IP65
Standby Self Consumption (W)	<13	<13
Topology	High Frequency Isolation	
Certifications & Standards		
Grid Regulation	VDE-AR-N 4105, VDE0126-1-1, AS4777.2, G83/2, CEI 0-21, NRS 097-2-1, EN50438	
Safety Regulation	IEC/EN62109-1&-2, IEC62040-1	
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29	

*1: Lead acid battery use refers to Approved Battery Options Statement . The actual charge and discharge current also depends on the battery.
*2: Under off-grid mode, then battery capacity should be more than 100Ah.
*3: When there is no battery connected, inverter starts feeding in only if string voltage is higher than 200V.
*4: 4600 for VDE 0126-1-1 &VDE-AR-N4105, 4950 for AS4777.2(GW5048D-ES); 4050 for CEI 0-21(GW3648D-ES).
*5: 21.7A for AS4777.2.
*6: Can be reached only if PV and battery power is enough.
*7: The standard configuration is CAN.

Power Whenever You Need

EM Series

Hybrid Inverter

- Smart battery management function
- Export control (Zero export)
- UPS function with 10 ms automatic switchover
- 50A charge & discharge capacity
- IP65 dustproof and waterproof
- Fanless design, long lifespan

The GoodWe EM series bi-directional energy storage inverter can be used for both on-grid and off-grid PV systems, with the ability to control the flow of energy intelligently. During the day, the PV array generates electricity which can be provided either to the loads, fed into the grid or charge the battery, depending on the economics and set-up. The electricity stored can be released when the loads require it during the night. Additionally, the power grid can also charge the storage devices via the inverter. An all-round intelligent system for maximum energy flexibility.

Technical Data	GW3048-EM	GW3648-EM	GW5048-EM
Battery Input Data			
Battery Type	Li-Ion or Lead-acid*1	Li-Ion or Lead-acid*1	Li-Ion or Lead-acid*1
Nominal Battery Voltage (V)	48	48	48
Max. Charging Voltage (V)	≤60 (Configurable)	≤60 (Configurable)	≤60 (Configurable)
Max. Charging Current (A)*1	50	50	50
Max. Discharging Current (A)*1	50	50	50
Battery Capacity (Ah)*2	50~2000	50~2000	50~2000
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	Self-adaption to BMS	Self-adaption to BMS
PV String Input Data			
Max. DC Input Power (W)	3900	4600	3900
Max. DC Input Voltage (V)*3	550	550	6500
MPPT Range (V)	100~500	100~500	100~500
Start-up Voltage (V)*4	150	150	150
Nominal DC Input Voltage (V)	360	360	360
Max. Input Current (A)	11	11/11	11
Max. Short Current (A)	13.8	13.8/13.8	13.8/13.8
No. of MPP Trackers	1	2	2
No. of Strings per MPP Tracker	1	1	1
AC Output Data (On-grid)			
Nominal Apparent Power Output to Utility Grid (VA)	3000	3680	5000*5
Max. Apparent Power Output to Utility Grid (VA)*6	3000	3680	5000
Max. Apparent Power from Utility Grid (VA)	5300	5300	5300
Nominal Output Voltage (V)	230	230	230
Nominal Output Frequency (Hz)	50/60	50/60	50/60
Max. AC Current Output to Utility Grid (A)	13.6	16	22.8*7
Max. AC Current From Utility Grid (A)	23.6	23.6	23.6
Output Power Factor	~1(Adjustable from 0.8 leading to 0.8 lagging)		
Output THDi (@Nominal Output)	<3%	<3%	<3%
AC Output Data (Back-up)			
Max. Output Apparent Power (VA)	2300	2300	2300
Peak Output Apparent Power (VA)*8	3500,10sec	3500,10sec	3500,10sec
Automatic Switch Time (ms)	10	10	10
Max. Output Current (A)	10	10	10
Nominal Output Voltage (V)	230 (±2%)	230 (±2%)	230 (±2%)
Nominal Output Frequency (Hz)	50/60 (±0.2%)	50/60 (±0.2%)	50/60 (±0.2%)
Output THDv (@Linear Load)	<3%	<3%	<3%
Efficiency			
Max. Efficiency	97.6%	97.6%	97.6%
Max. Battery to Load Efficiency	94.5%	94.5%	94.5%
European Efficiency	97.0%	97.0%	97.0%
Protection			
Anti-Islanding Protection	Integrated	Integrated	Integrated
PV String Input Reverse Polarity Protection	Integrated	Integrated	Integrated
Insulation Resistor Detection	Integrated	Integrated	Integrated
Residual Current Monitoring Unit	Integrated	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated	Integrated
Output Short Protection	Integrated	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated	Integrated
General Data			
Operating Temperature Range (°C)	-25~60	-25~60	-25~60
Relative Humidity	0~95%	0~95%	0~95%
Operating Altitude (m)	4000	4000	4000
Cooling	Natural Convection		
Noise (dB)	<25	<25	<25
User Interface	LED & APP	LED & APP	LED & APP
Communication with BMS*9	RS485; CAN	RS485; CAN	RS485; CAN
Communication with Meter	RS485	RS485	RS485
Communicaiton with Portal	Wi-Fi	Wi-Fi	Wi-Fi
Weight (kg)	16	17	17
Size (Width*Height*Depth mm)	347*432*175	347*432*175	347*432*175
Mounting	Wall Bracket	Wall Bracket	Wall Bracket
Protection Degree	IP65	IP65	IP65
Standby Self Consumption (W)	<13	<13	<13
Topology	High Frequency Isolation		
Certifications & Standards			
Grid Regulation	AS/NZS 4777.2:2015, G83/2, G100, CEI 0-21, VDE4105-AR-N, VDE0126-1-1, NRS 097-2-1, RD1699, UNE206006, EN50438		
Safety Regulation	IEC/EN62109-1&-2, IEC62040-1		
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29		

*1: Lead-acid battery use refers to Approved Battery Options Statement . The actual charge and discharge current also depends on the battery.
*2: Under off-grid mode, then battery capacity should be more than 100Ah.
*3: Maximum operating dc voltage is 530V.
*4: When there is no battery connected, inverter starts feeding in only if string voltage is higher than 200V.
*5: 4600 for VDE0126-1-1&VDE-AR-N4105 & CEI 0-21(GW5048-EM).
*6: For CEI 0-21 GW3048-EM is 3300, GW3648-EM is 4050, GW5048-EM is 5100; for VDE-AR-N4105 GW5048-EM is 4600.
*7: 21.7A for AS4777.2.
*8: Can be reached only if PV and battery power is enough.
*9: The standard configuration is CAN.

Power Your Future Today

GoodWe ESA Series is an all-in-one solar and storage solution which integrates the inverter, battery charger, UPS and battery enclosure into a pre-wired modular system for easier and faster installation. The compact, elegantly designed and robust unit is IP65 rated so it can be mounted either inside or outside withstanding all weather conditions.

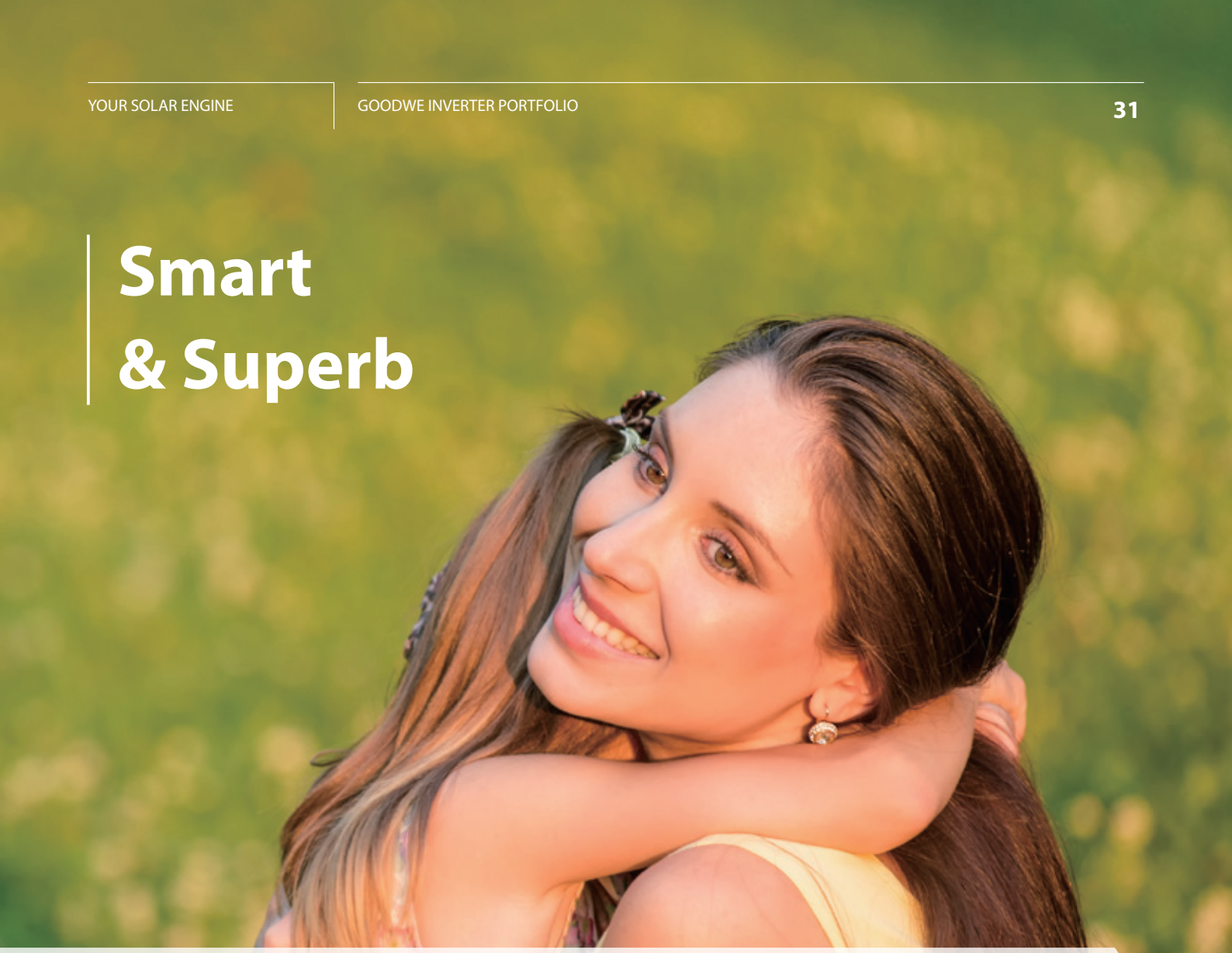
- 5kW PV output
- Integrated isolators
- Pre-wired
- Inbuilt UPS
- Expandable storage

Specifications	BCL9600
Battery Enclosure	**BCL9600**
Number of Battery Units	Up to 4 x 19" Rack Mountable Battery Packs
Storage Capacity	Up to 9.6kWh (4 x 2.4kWh Pylon Tech Batteries)
Battery Voltage	48V DC Nominal / 60V DC Maximum
Battery Chemistry	Lithium-ion with BMS
Access Type	Removable front Panels
Cable Specification	
Battery Cable Rating	4 x 65A
Battery Cable Type	8 AWG (8.36mm^2)
Battery Cable Termination (Battery Enclosure)	Surlok Amphenol Connector
Battery Cable Termination (Inverter)	Amphenol H4 (65A)
BMS Cable Type	Depends on Battery Type
BMS Cable Termination	Refer to Battery Enclosure Installation Manual
Ventilation Specification	
Ventilation Type	Passive and Active Cooling
Ventilation Control	Smart Temperature Control
Number of Fans	2
Fan Power	48V DC / 0.13A Per Fan
Fan Activation Temperature	Variable Depending on Charge/Discharge
Incoming Ventilation Aperture	288cm^2 with Washable Filter
Outgoing Ventilation Aperture	288cm^2 with Washable Filter
Passive Airflow Rate	30cm^3/min
Active Airflow Rate	320cm^3/min
General Data	
External Dimension (W x H x D)	W 516mm x H 1205mm x D 280mm (with Feet)
Mounting and Weight - Empty	32kg Rear Fixing
Mounting and Weight - with Batteries	130kg Typical
Ambient Temperature Range	Based on Battery Specification
Environmental Protection Rating	IP54 - Protected From Rain, Splashing and Spraying
Noise Emissions	Less than 25dB
Warranty	5 Years
Construction	Powder Coated Steel Chassis
Finish	Sealed, Powder Coated front Covers and Chassis
Supply	Ships Pre-assembled
Maintenance	Externally Serviceable Dust Filters

Technical Data		GW5048-ESA	
Battery Input Data		Nominal Ouput Frequency (Hz)	50/60 (±0.2%)
Battery Type	Li-Ion	Output THDv (@Linear Load)	<3%
Nominal Battery Voltage (V)	48	Back-up loads AC disconnect	Integrated 2 pole 25A MCB
Battery Voltage Range(V)	40~60	Manual back-up load AC bypass switch	Integrated
Maximum charging power (W)	4600	**Efficiency**	
Maximum discharge power (W)	4600	Max. Efficiency	97.6%
Maximum charging current(A)	85	European averaged efficiency	97.0%
Maximum discharging current(A)	100	Max. Battery to Load Efficiency	94.0%
Battery charging method	Self-adaption to BMS	**Protection**	
Battery disconnect	Integrated 2 pole DC breaker 125A DC per pole	Anti-islanding Protection	Integrated
PV String Input Data		PV String Input Reverse Polarity Protection	Integrated
Max. DC Input Power (W)	6500	Insulation Resistor Detection	Integrated
Max. DC Input Voltage (V)	580	Residual Current Monitoring Unit	Integrated
MPPT Range (V)	125~550	Output Over Current Protection	Integrated
Start-up Voltage (V)	150	Output Short Protection	Integrated
Nominal DC Input Voltage (V)	360	Output Over Voltage Protection	Integrated
Max. Input Current (A)	11/11	**General Data**	
Max. Short Current (A)	13.8/13.8	Operating Temperature Range (°C)	-25~60
No. of MPP Trackers	2	Relative Humidity	0~95%
No. of Strings per MPP Tracker	1	Operating Altitude (m)	3000
Solar array switch	Integrated	Cooling	Nature Convection
AC Output Data (On-grid)		Noise (dB)	<25
Max. Apparent Power Output to Utility Grid (VA)*	4600/5100	User Interface	LED & APP
Max. Apparent Power from Utility Grid (VA)	9200	Communication with BMS	CAN
Nominal Output Voltage (V)	230	Communication with Meter	RS485
Nominal Ouput Freqency (Hz)	50/60	Communicaiton with Portal	Wi-Fi
Max. AC Current Output to Utility Grid (A)	22.8	Weight (kg)	Inverter 32kg, BoS 12kg, total 44kg
Max. AC Current From Utility Grid (A)	40	Size (Width*Height*Depth mm)	516 x 832 x 290
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)	Mounting	Wall Bracket
Output THDi (@Nominal Output)	<3%	Protection Degree	IP65
Grid disconnect	Integrated 2 pole 40A MCB	Standby Self-Consumption (W)	<13
AC Output Data (Back-up)		Topology	Battery High Frequency Isolation/Solar Transformerless
Nominal Output Apparent Power (VA)	4600	**Certifications & Standards**	
Nominal Output Current (A)	20	Grid Regulation	CEI 0-21;VDE4105-AR-N
Peak Output Apparent Power (VA)**	6900 (10 seconds maximum)	Safety Regulation	IEC/EN62109-1&2, IEC62040-1
Nominal Output Voltage (V)	230 (±2%)	EMC	EN61000-6-4,EN 61000-4-16, EN 61000-4-18, EN 61000-4-29

*:4600VA for VDE-AR-N4105,5100VA for other country **: Can be reached only if PV and battery power is enough

Smart & Superb



DSS Series

Dual-MPPT, Single-Phase

- Compatible with double-glass bifacial modules
- Connectors temperature sensor
- Highest efficiency up to 98.6%
- Rapid shutdown & optimization solution

The new GoodWe DSS series is the first single-phase on-grid inverter in the market compatible with bifacial double-glass modules. Awarded with the prestigious Red Dot Design Award for its beautiful aesthetics and user friendly design with a color LED screen display, the DSS series inverter is now 30% lighter for easier installation both indoors and outdoors. Furthermore, DC oversizing of up to 35% and AC overloading of 10% is allowed. Thanks to its reliable performance, the DSS series can reach the highest efficiency of up to 98.6%.

Technical Data	GW3600D-SS	GW4200D-SS	GW5000D-SS
PV String Input Data			
Max. DC Input Power (W)	4680	5500	6500
Max. DC Input Voltage (V)	600	600	600
MPPT Range (V)	80~550	80~550	80~550
Start-up Voltage (V)	80	80	80
Nominal DC Input Voltage (V)	360	360	360
Max. Input Current (A)	12.5/12.5	12.5/12.5	12.5/12.5
Max. Short Current (A)	15.6	15.6	15.6
No. of MPP Trackers	2	2	2
No. of Input Strings per Tracker	1	1	1
AC Output Data			
Nominal Output Power (W)	3600	4200	5000
Max. Output Apparent Power (VA)	3960	4620	5500
Nominal Output Voltage (V)	220V/230V	220V/230V	220V/230V
Nominal Output Frequency (Hz)	50/60	50/60	50/60
Max. Output Current (A)	18	21	25
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)		
Output THDi (@Nominal Output)	<3%	<3%	<3%
Efficiency			
Max. Efficiency	98.6%	98.6%	98.6%
European Efficiency	>98%	>98%	>98%
Protection			
Anti-Islanding Protection	Integrated	Integrated	Integrated
Input Reverse Polarity Protection	Integrated	Integrated	Integrated
Insulation Resistor Detection	Integrated	Integrated	Integrated
DC SPD Protectioin	Integrated	Integrated	Integrated
AC SPD Protection	Integrated	Integrated	Integrated
Residual Current Monitoring Unit	Integrated	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated	Integrated
Output Short Protection	Integrated	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated	Integrated
General Data			
Operating Temperature Range (°C)	-25~60	-25~60	-25~60
Relative Humidity	0~100%	0~100%	0~100%
Operating Altitude (m)	≤4000	≤4000	≤4000
Cooling	Natural Convection		
Noise (dB)	<25	<25	<25
User Interface	LCD or APP	LCD or APP	LCD or APP
Communication	WiFi	WiFi	WiFi
Weight (kg)	11	11	11
Size (Width*Height*Depth mm)	336*400*124	336*400*124	336*400*124
Protection Degree	IP65	IP65	IP65
Night Self Consumption (W)	<1	<1	<1
Topology	Transformerless		
Certifications & Standards			
Grid Regulation	VDE4105-AR-N, VDE0126-1-1z, AS4777.2, CEI 0-21, RD1699, IEEE1547, ABNT NBR 16149 : 2013		
Safety Regulation	IEC62109		
EMC	EN61000		

Color Options

Upgrade Your System At a Low Cost

BH Series

AC-Coupled Retrofit Inverter

- High voltage battery
- Small size
- Light weight
- Battery input reverse polarity protection

The brand new BH GoodWe inverter is a 1-3kW AC-coupled retrofit inverter solution capable of enhancing and upgrading existing single-phase string inverters systems. The BH is an on-grid solution that can be connected to Li-ion high-voltage batteries and its cost is much lower than other alternatives in the market. This is a very safe inverter and it comes with a battery input reverse polarity protection. BH series are compact in size and comes with a very light weight of only 8.5kg, which ensures that it always remains as a very cost effective solution.

Technical Data	GW1000-BH	GW2000-BH	GW3000-BH
Battery Input Data			
Battery Type	Li-Ion	Li-Ion	Li-Ion
Battery Voltage Range (V)	80~400	80~400	80~400
Start-up Voltage (V)	80	80	80
Max. Charging/Discharging Current (A)	13	15	15
Charging /Discharging Strategy for Li-Ion Battery	Self-adaption to BMS	Self-adaption to BMS	Self-adaption to BMS
AC Output Data			
Nominal Power Output to Utility Grid (W)	1000	2000	3000
Max. Apparent Power Output to Utility Grid (VA)	1000	2000	3000
Nominal Output Voltage (V)	230	230	230
Nominal Ouput Frequency (Hz)	50/60	50/60	50/60
Max. AC Current Output to Utility Grid (A)	5	10	13.5
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)		
Output THDi (@Nominal Output)	<3%	<3%	<3%
Efficiency			
Max. Efficiency	96.0%	96.5%	96.5%
Protection			
Anti-Islanding Protection	Integrated	Integrated	Integrated
Battery Input Reverse Polarity Protection	Integrated	Integrated	Integrated
Insulation Resistor Detection	Integrated	Integrated	Integrated
Residual Current Monitoring Unit	Integrated	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated	Integrated
Output Short Protection	Integrated	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated	Integrated
General Data			
Operating Temperature Range (°C)	-25~60	-25~60	-25~60
Relative Humidity	0~95%	0~95%	0~95%
Operating Altitude (m)	≤4000	≤4000	≤4000
Cooling	Natural Convection	Natural Convection	Natural Convection
Noise (dB)	<25	<25	<25
User Interface	LED & APP	LED & APP	LED & APP
Communication with BMS	CAN	CAN	CAN
Communication with Meter	RS485	RS485	RS485
Communicaiton with Portal	Wi-Fi/Ethernet	Wi-Fi/Ethernet	Wi-Fi/Ethernet
Weight (kg)	8.5	8.5	8.5
Size (Width*Height*Depth mm)	344*274.5*128	344*274.5*128	344*274.5*128
Mounting	Wall Bracket	Wall Bracket	Wall Bracket
Protection Degree	IP65	IP65	IP65
Standby Self Consumption (W)	<15	<15	<15
Topology	Transformerless	Transformerless	Transformerless
Certifications & Standards			
Grid Regulation	G98		
Safety Regulation	IEC/EN62109-1&-2, IEC62040-1		
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4 EN61000-4-16, EN61000-4-18, EN61000-4-29		

Renovate & Save More

BT Series

Three Phase
AC-Coupled Retrofit Inverter

- UPS function (uninterrupted power supply)
- High voltage battery (180-600V)
- Up to 98% max. efficiency
- Up to 100% overloading
- Battery input reverse polarity protection

BT series is a GoodWe retrofit AC coupled solution, which is able to upgrade existing three-phase PV system to storage of 5kW, 6kW, 8kW & 10kW. This solution is able to modernize any three-phase PV system, providing the ability to store power or operate with the back-up of batteries, ensuring interactivity or grid independence. It is compatible with high voltage Li-Ion batteries ranging from 180 to 600V and is also equipped with UPS function. It can reach efficiency of up to 98% and one very outstanding feature is that it permits up to 100% of overloading. As part of its set of protections, it incorporates a Battery Input Reverse Polarity Protection. It also includes LAN as one of its communications options.

Technical Data	GW5K-BT	GW6K-BT	GW8K-BT	GW10K-BT
Battery Input Data				
Battery Type	Li-Ion	Li-Ion	Li-Ion	Li-Ion
Battery Voltage Range (V)	180~600	180~600	180~600	180~600
Max. Charging Current (A)	25	25	25	25
Max. Discharging Current (A)	25	25	25	25
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	Self-adaption to BMS	Self-adaption to BMS	Self-adaption to BMS
AC Output Data (On-grid)				
Nominal Apparent Power Output to Utility Grid (VA)	5000	6000	8000	10000
Max. Apparent Power Output to Utility Grid (VA) *	5500	6600	8800	11000
Max. Apparent Power from Utility Grid (VA)	10000	12000	15000	15000
Nominal Output Voltage (V)	400/380, 3L/N/PE	400/380, 3L/N/PE	400/380, 3L/N/PE	400/380, 3L/N/PE
Nominal Ouput Freqency (Hz)	50/60	50/60	50/60	50/60
Max. AC Current Output to Utility Grid (A)	8.5	10.5	13.5	16.5
Max. AC Current From Utility Grid (A)	15.2	18.2	22.7	22.7
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)			
Output THDi (@Nominal Output)	<3%	<3%	<3%	<3%
UPS Output Data (Back-up)				
Max. Output Apparent Power (VA)	5000	6000	8000	10000
Peak Output Apparent Power (VA) **	10000, 60sec	12000, 60sec	15000, 60sec	15000, 60sec
Max. Ouput Current (A)	8.5	10.5	13.5	16.5
Automatic Switch Time (s)	≤0.01	≤0.01	≤0.01	≤0.01
Nominal Output Voltage (V)	400/380	400/380	400/380	400/380
Nominal Ouput Frequency (Hz)	50/60	50/60	50/60	50/60
Output THDv (@Linear Load)	<3%	<3%	<3%	<3%
Efficiency				
Max. Battery to Load Efficiency	97.5%	97.5%	97.5%	97.5%
Max. Charge Efficiency	97.5%	97.5%	97.5%	97.5%
Protection				
Anti-Islanding Protection	Integrated	Integrated	Integrated	Integrated
Insulation Resistor Detection	Integrated	Integrated	Integrated	Integrated
Residual Current Monitoring Unit	Integrated	Integrated	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated	Integrated	Integrated
Output Short Protection	Integrated	Integrated	Integrated	Integrated
Battery Input Reverse Polarity Protection	Integrated	Integrated	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated	Integrated	Integrated
General Data				
Operating Temperature Range (°C)	-35~60	-35~60	-35~60	-35~60
Relative Humidity	0~95%	0~95%	0~95%	0~95%
Operating Altitude (m)	≤4000	≤4000	≤4000	≤4000
Cooling	Natural Convection			
Noise (dB)	<30	<30	<30	<30
User Interface	LED & APP	LED & APP	LED & APP	LED & APP
Communication with BMS	RS485; CAN	RS485; CAN	RS485; CAN	RS485; CAN
Communication with Meter	RS485	RS485	RS485	RS485
Communication with EMS	RS485 (Insulated)			
Communicaiton with Portal	Wi-Fi	Wi-Fi	Wi-Fi	Wi-Fi
Weight (kg)	21	21	21	21
Size (Width*Height*Depth mm)	516*415*180	516*415*180	516*415*180	516*415*180
Mounting	Wall Bracket	Wall Bracket	Wall Bracket	Wall Bracket
Protection Degree	IP65	IP65	IP65	IP65
Standby Self Consumption (W) ***	<15	<15	<15	<15
Topology	Transformerless			
Certifications & Standards				
Grid Regulation	CEI 0-21; VDE4105-AR-N; VDE0126-1-1; EN50438; G83/2; G100	AS/NZS 4777.2:2015	CEI 0-21; VDE4105-AR-N; VDE0126-1-1; EN50438; G83/2; G100	AS/NZS 4777.2:2015
Safety Regulation	IEC62109-1&-2, IEC62040-1			
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29			

*: According to the local grid regulation. **: Can be reached only if battery capacity is enough, otherwise will shut down. ***: No Back-up Output.

Back Up & Upgrade Your Savings

SBP Series

AC-Coupled Retrofit Inverter

- Capable of being grid-interactive or grid-independent
- Suitable for both single-phase & three-phase systems
- Smart BMS – Max. discharge power up to 4.6kW
- Export control (zero export)
- UPS function with 10 ms automatic switchover

The GoodWe SBP series is the world's first AC-coupled battery storage retrofit solution with UPS function for both single-phase and three-phase systems. It can effectively upgrade any existing string inverter system by adding a backup battery. Capable of being either grid-interactive or independent, it allows users to store surplus power and sell it back to the grid when demand peaks and the price of electricity is at its highest. With its UPS function with an automatic switchover time of less than 10 ms, GoodWe SBP provides uninterruptible power supply to inductive loads such as air conditioners or refrigerators.

Technical Data	GW3600S-BP	GW5000S-BP
Battery Input Data		
Battery Type[*1]	Li-Ion or Lead-acid	Li-Ion or Lead-acid
Nominal Battery Voltage (V)	48	48
Max. Charging Voltage (V)	≤60 (Configurable)	≤60 (Configurable)
Max. Charging Current (A)[*1]	75	100
Max. Discharging Current (A)[*1]	75	100
Battery Capacity (Ah)[*2]	50~2000	50~2000
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	Self-adaption to BMS
AC Output Data (On-grid)		
Nominal Power Output to Utility Grid (W)	3680	5000[*3]
Max. Apparent Power Output to Utility Grid (VA)[*4]	3680	5000
Max. Apparent Power from Utility Grid (VA)	7360	9200
Nominal Output Voltage (V)	230	230
Nominal Ouput Frequency (Hz)	50/60	50/60
Max. AC Current Output to Utility Grid (A)	16	22.8[*5]
Max. AC Current From Utility Grid (A)	32	40
Output Power Factor	~1(Adjustable from 0.8 leading to 0.8 lagging)	
Output THDi (@Nominal Output)	<3%	<3%
AC Output Data (Back-up)		
Max. Output Apparent Power (VA)[*6]	3680	5000
Peak Output Apparent Power (VA)[*6]	4416, 10sec	5500, 10sec
Automatic Switch Time (ms)	<10	<10
Nominal Output Voltage (V)	230 (±2%)	230 (±2%)
Nominal Output Frequency (Hz)	50/60 (±0.2%)	50/60 (±0.2%)
Max. Output Current (A)	16	22.8
Output THDv (@Linear Load)	<3%	<3%
Efficiency		
Max. Efficiency	95.5%	95.5%
Protection		
Anti-Islanding Protection	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated
Output Short Protection	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated
General Data		
Operating Temperature Range (°C)	-25~60	-25~60
Relative Humidity	0~95%	0~95%
Operating Altitude (m)	≤4000	≤4000
Cooling	Natural Convection	Natural Convection
Noise (dB)	<25	<25
User Interface	LED & APP	LED & APP
Communicaiton with BMS[*7]	RS485; CAN	RS485; CAN
Communicaiton with Meter	RS485	RS485
Communicaiton with Portal	Wi-Fi	Wi-Fi
Weight (kg)	18.5	18.5
Size (Width*Height*Depth mm)	347*432*190	347*432*190
Mounting	Wall Bracket	Wall Bracket
Protection Degree	IP65	IP65
Standby Self Consumption (W)	<15	<15
Topology	High Frequency Isolation	High Frequency Isolation
Certifications & Standards		
Grid Regulation	AS/NZS 4777.2:2015, G83/2, G100, CEI 0-21;RD1699;UNE206006; VDE4105-AR-N; VDE0126-1-1; EN50438	AS/NZS 4777.2:2015, G59/3, G100, CEI 0-21;RD1699;UNE206006; VDE4105-AR-N; VDE0126-1-1; EN50438
Safety Regulation	IEC62477-1, IEC62040-1	
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29	

*1: lead acid battery use refers to battery compatible statement (Not all lead acid batteries are compatible) The actual charge and discharge current also depends on the battery.
*2: Battery capacity could be not less than 100Ah where the back-up function is to be applied.
*3: 4600 for VDE0126-1-1&VDE-AR-N 4105 and CEI 0-21.
*4: For CEI 0-21 GW3600S-BP is 4050, GW5000S-BP is 5100; for VDE-AR-N4105 GW5000S-BP is 4600.
*5: 21.7A for AS4777.2.
*6: Can be reached only if battery capacity is enough, otherwise will shut down.
*7: The standard configuration is CAN.

SMART ENERGY MANAGEMENT SYSTEM

Multilingual Platform

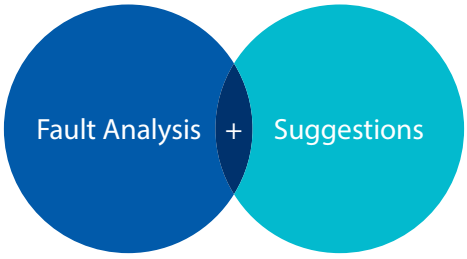
GoodWe Smart Energy Management System (SEMS) is a cost-free monitoring platform which offers reliable operation of photovoltaic plants for maximum yield. SEMS allows operators to simultaneously monitor a diverse range of photovoltaic power plants in different locations in real time. Extensive data processing, customized charts, and alarm and maintenance functions ensure that operators, operations managers and asset managers can comfortably and efficiently manage the systems, ensuring maximum yields.

SEMS includes a range of functions and features to ensure reliable operation and to deliver precise information to operators at the press of a button. It is accessible by multiple accounts with different levels of access for owners, installers and EPC companies.

ALL-IN-ONE MONITORING

The live and archived data from any PV power plants in a particular account can be called up and graphically displayed.

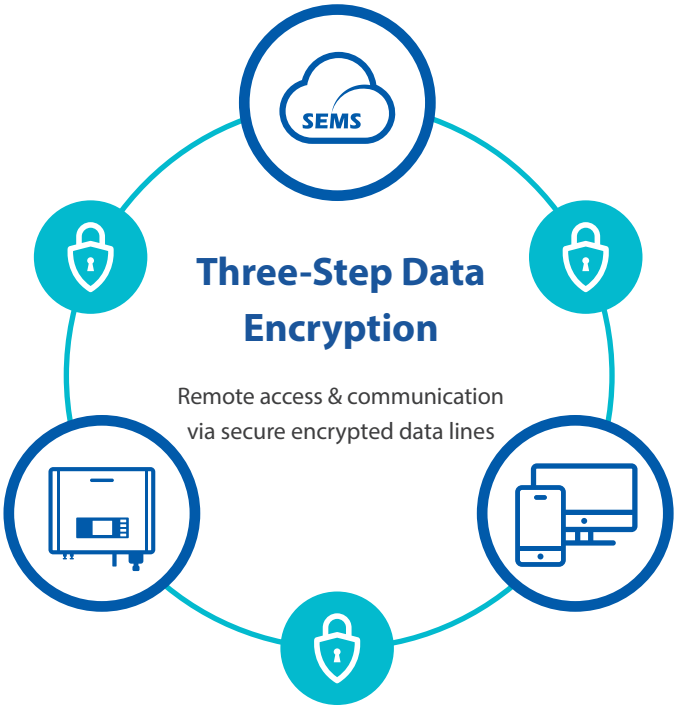
Dynamic carousel of all the plants under your account



Lower O&M cost:
Full visibility of system performance & remote troubleshooting

MULTI-TERMINAL COMPATIBILITY AND SHARING

Performance sharing on



GENERATION REPORT & CUSTOMIZED DATA ANALYSIS

Precise and comprehensive detection & evaluation of plant data

The content and design of reports can be adjusted to suit your individual requirements. A report generator is also available in addition to standard reports.

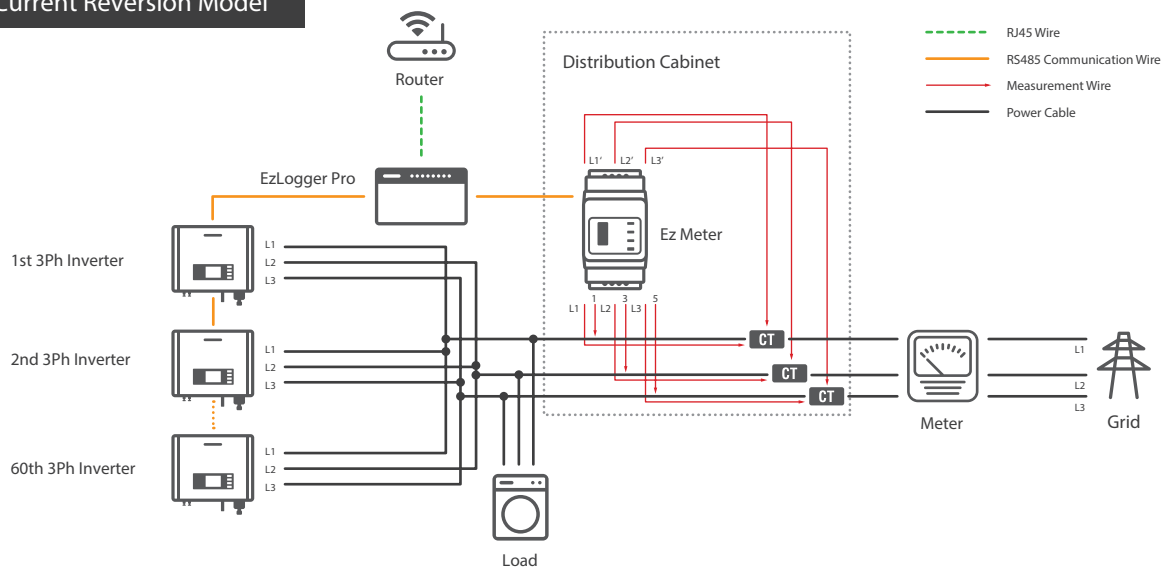
EzLogger Pro **Indoor**

EzLogger is GoodWe's self-developed monitoring device. In combination with a GoodWe solar inverter, it can easily read and record all key plants data and constantly transmit the data to the global monitoring web server via internet.

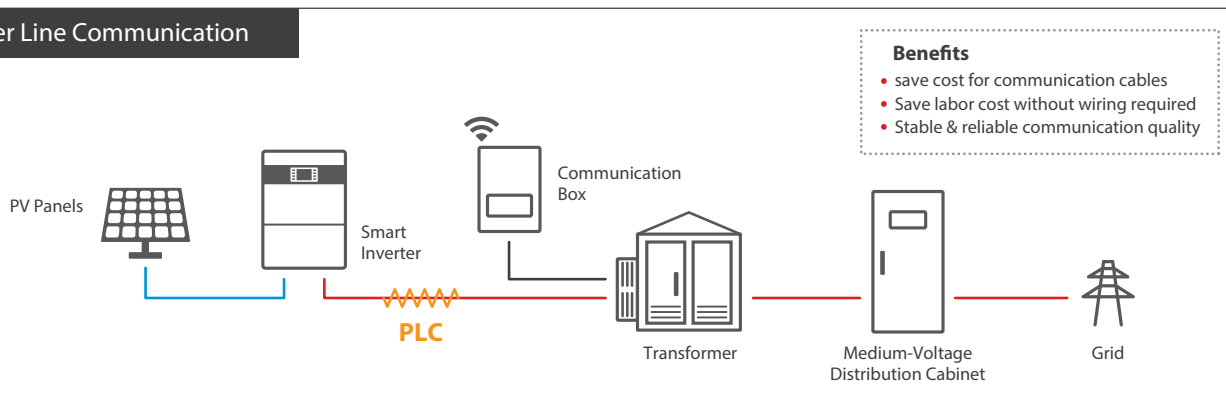
Smart Meter

GoodWe Smart Meter is designed with high precision and small dimensions, convenient operation and installation. It is available for both single-phase and three-phase grid system connection to detect voltage, current, power and energy, for working with inverters including SEMS systems for the purpose energy management.

Anti-Current Reversion Model



Power Line Communication



GOODWE SERVICE STRUCTURE

GoodWe's qualified service network team is available at all times to provide local technical support whenever and wherever you need it.

4

Call Center: First Level Support & Troubleshooting

Our professional team provides technical support to customers in the troubleshooting and diagnosis of operational issues. Usually a problem can be corrected via remote access so that on-site service is unnecessary.

On-site Support

GoodWe authorized service engineers can perform on-site inspection, testing, debugging and provide repair or replacement if necessary, using the latest techniques to maximize your inverter's performance while minimizing production or process downtime.

Follow-up & Customer Satisfaction Survey

We value our customers' feedback and believe that good customer service and support is mandatory. For this reason, we actively listen to our customers' experience with our brand and service and carry out regular surveys in order to better meet your needs and expectations.

Global Presence, Local Service

UK, Australia, Netherlands, Germany, Turkey, India, Mexico, Brazil, Italy, Korea, Spain

GOODWE SOLAR ACADEMY

GoodWe Solar Academy (GSA) provides expertise and professional, customer training sessions on inverter products and PV solutions. No matter you are an installer, system designer or technical sales, with GSA you will learn everything you need to know about PV industry, GoodWe solutions and application examples.

Knowledge & Education

GSA trainings are designed to address the technical challenges that our customers face on a regular basis. Our GSA trainers are experienced professionals who understand the solar market challenges and demands.

Optimization

With a sound experience in solar industry, GSA team can provide you with tips to ensure your plant is optimized and will run more efficiently. Our GSA engineers can provide suggestions to control operational losses, maximize generation, and improve profitability

Customer Workshops & Training

Tailor-made workshops and advanced technical training sessions on GoodWe products are available upon request.

Local Solar Academy

Thanks to GoodWe's global network, GSA can offer in-country training and workshop sessions all over the world. GSA is able to make specially tailored program according to customer's needs.






GOODWE WORKSHOPS

GoodWe Solar Academy workshops are designed to help you to gain useful know-how through industry-specific real case studies combined with the right blend of theory and practice. Our GSA trainers are experienced professionals who understand your needs and the changing demands of the PV market.







GOODWE
PROJECTS REFERENCE

GROUND/UTILITY PROJECTS

COMMERCIAL ROOFTOP

RESIDENTIAL ROOFTOP

ENERGY STORAGE SYSTEM

11 MW

De Munt Emmeloord

The Netherlands

25MW

Shanxi

China

6MW

Griene Greide Garyp

The Netherlands

18MW

Konya

Turkey

5MW

Assen Circuit

The Netherlands

1 MW

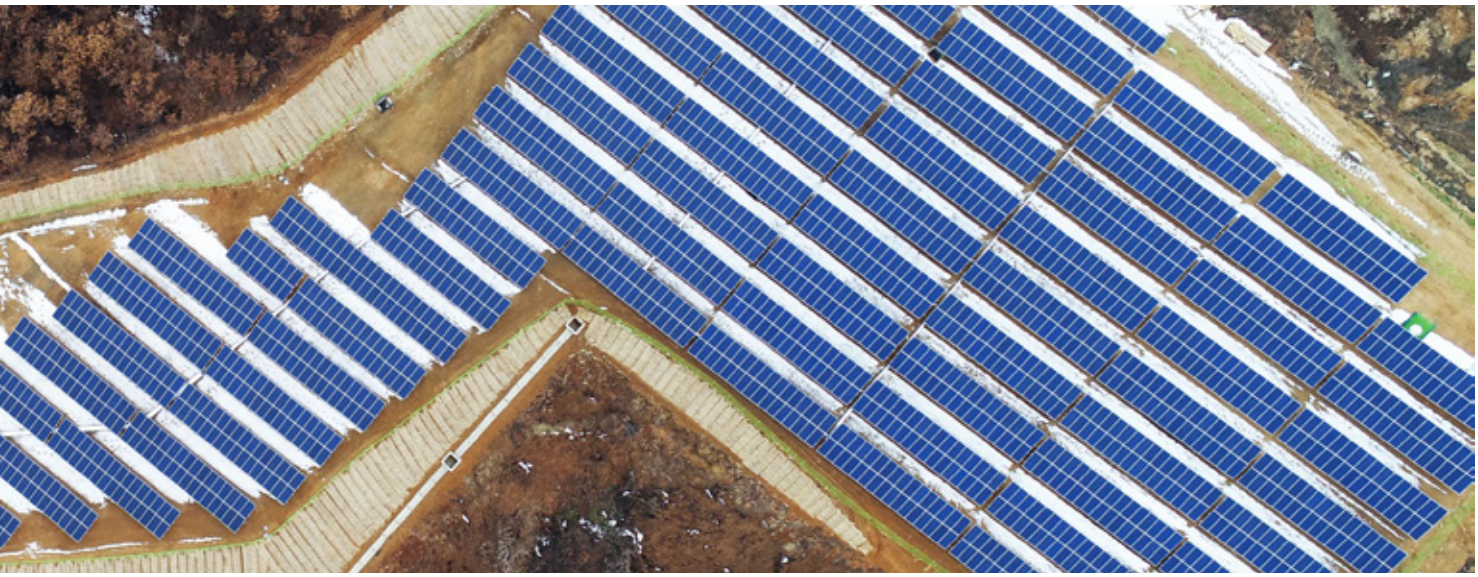
Buyeo

Korea

500 KW

Andong

Korea



6MW

Mangaluru
India

12MW

Rottedam
The Netherlands

2MW

Amsterdam
The Netherlands

700KW

Yeosu
South Korea

200KW

Antonio
Switzerland

20KW

Vineyard

South Africa

170KW

Bucarest

Romania

12KW

Denmark

Europe

10KW

Hout Bay
South Africa

40KW

Cape Town
South Africa

5KW

Prague

Czech Republic

100KW

KZN Balito

South Africa

10KW

Melbourne

Australia

Series	Model	CE	VDE0126-1-1 (Europe)	VDE-AR-N 4105 (Germany)	VDE-AR-N 4110 (Germany)	EN/IEC 62109-1&-2 (Europe)	IEC 62477-1 (Europe)	AS 62040.1.1 AS 4777.2 (Australia)	G83/2 G59/3 G98 G99 G100 (UK)	NRS 097-2-1 (S. Africa)	MEA PEA (Thailand)	ERDF-NOI-RES_13E (France)	IEC61727 IEC62116 (India)	IEC600 IEC616 (India)
XS	GW700-XS			●		●			G98					
	GW1000-XS			●		●			G98				●	●
	GW1500-XS			●		●			G98					
	GW2000-XS			●		●			G98				●	●
	GW2500-XS			●		●			G98					
	GW3000-XS			●		●			G98					
NS	GW1000-NS	●	●			●		AS 4777.2	G83/2 G98			●	●	●
	GW1500-NS	●	●			●		AS 4777.2	G83/2 G98			●	●	
	GW2000-NS	●	●			●		AS 4777.2	G83/2 G98			●	●	●
	GW2500-NS	●	●			●		AS 4777.2	G83/2 G98			●	●	
	GW3000-NS	●	●			●		AS 4777.2	G83/2 G98		MEA	●	●	●
DNS	GW3000D-NS	●	●	●		●		AS 4777.2	G83/2 G98 G99				●	
	GW3600D-NS	●	●	●		●		AS 4777.2	G83/2 G98 G99				●	
	GW4200D-NS	●	●	●		●		AS 4777.2	G59/3 G98 G99				●	●
	GW5000D-NS	●	●	●		●		AS 4777.2	G59/3 G98 G99		MEA		●	●
	GW6000D-NS	●	●	●		●			G98 G99				●	●
SDT	GW4000-DT	●	●	●		●		AS 4777.2	G83/2 G59/3 G98 G99			●	●	●
	GW5000-DT	●	●	●		●		AS 4777.2	G83/2 G59/3 G98 G99		MEA PEA	●	●	●
	GW6000-DT	●	●	●		●		AS 4777.2	G83/2 G59/3 G98 G99			●	●	●
	GW4000L-DT	●	●	●		●		AS 4777.2	G83/2 G59/3			●		
	GW5000L-DT	●	●	●		●		AS 4777.2	G83/2 G59/3			●		
	GW6000L-DT	●	●	●		●		AS 4777.2	G83/2 G59/3			●		
	GW10KL-DT	●	●	●		●		AS 4777.2						
	GW8000-DT	●	●	●		●		AS 4777.2	G83/2 G59/3 G98 G99				●	●
	GW9000-DT	●	●	●		●		AS 4777.2	G83/2 G59/3 G98 G99				●	●
	GW10KN-DT	●	●	●		●		AS 4777.2	G83/2 G59/3 G98 G99		MEA PEA		●	●
	GW12KN-DT	●	●	●		●			G98 G99					
	GW15KN-DT	●	●	●		●		AS 4777.2	G98 G99				●	●
	GW17KN-DT	●	●	●		●		AS 4777.2	G98 G99				●	
	GW20KN-DT	●	●	●		●		AS 4777.2	G98 G99				●	●
SDT G2	GW4K-DT					●		AS 4777.2					●	●
	GW5K-DT					●		AS 4777.2					●	●
	GW6K-DT					●		AS 4777.2					●	●
	GW8K-DT					●		AS 4777.2						
	GW10K-DT					●		AS 4777.2						
DT	GW20K-DT	●	●	●		●		AS 4777.2			MEA	●	●	●
	GW25K-DT	●	●	●		●		AS 4777.2					●	●
LVDT	GW12KLV-DT					●							●	
	GW15KLV-DT					●							●	
SMT	GW25K-MT		●	●		●			G99 G100	●			●	●
	GW30K-MT		●	●		●			G99 G100	●			●	●
	GW36K-MT		●	●		●			G99 G100	●			●	●

68 83	EN50530 (India)	KS C 8565/ 8564 (Korean)	CEI0-21 (Italy)	DEWA (Dubai)	RD1699 UNE (Spain)	ABNT NBR 16149/ 16150 (Brazil)	Barbados	Chile	EN50438+ VDE0126-1-1/A1 (Poland)	EN50438 (Sweden)	EN50438 (Netherlands)	IEEE1547 (America)	EN50438 (Irish)	EN50438 (Portugal)	IEC62891	IEEE1547
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Series	Model	CE	VDE0126-1-1 (Europe)	VDE-AR-N 4105 (Germany)	VDE-AR-N 4110 (Germany)	EN/IEC 62109-1&-2 (Europe)	IEC 62477-1 (Europe)	AS 62040.1.1 AS 4777.2 (Australia)	G83/2 G59/3 G98 G99 G100 (UK)	NRS 097-2-1 (S. Africa)	MEA PEA (Thailand)	ERDF-NOI-RES_13E (France)	IEC61727 IEC62116 (India)	IEC60 IEC61 (Ind
MT G2	GW50K-MT	●	●	●		●		AS 4777.2	G59/3 G99 G100				●	●
	GW60K-MT	●	●	●		●		AS 4777.2	G59/3 G99 G100				●	●
	GW 50KN-MT		●	●				AS 4777.2				●		
	GW60KN-MT											●		
	GW70KHV-MT													
	GW80K-MT													
	GW80KLBF-MT													
	GW80KHV-MT													
	GW80KBF-MT													
LVMT	GW30KLV-MT												●	
	GW35KLV-MT												●	
ES	GW3648D-ES	●	●	●		●		AS 62040.1.1 AS 4777.2	G83/2 G98 G99	●				
	GW5048D-ES	●	●	●		●		AS 62040.1.1 AS 4777.2	G59/3 G98 G99	●	MEA PEA		●	●
BP	GW2500-BP	●				●								
SBP	GW3600S-BP	●	●	●			●	AS 62040.1.1 AS 4777.2	G83/2 G98 G99 G100	●				
	GW5000S-BP	●	●	●			●	AS 62040.1.1 AS 4777.2	G59/3 G98 G99 G100	●				
EM	GW3048-EM	●	●	●		●		AS 62040.1.1 AS 4777.2	G83/2 G98 G99 G100	●			●	●
	GW3648-EM	●	●	●		●		AS 62040.1.1 AS 4777.2	G83/2 G98 G99 G100	●				
	GW5048-EM	●	●	●		●		AS 62040.1.1 AS 4777.2	G59/3 G98 G99 G100	●				
ET	GW10K-ET	●	●	●		●		AS 4777.2	G83/2 G59/3 G99 G100				●	●
	GW8K-ET	●	●	●		●		AS 4777.2	G83/2 G59/3 G99 G100				●	
	GW6KL-ET	●				●		AS 4777.2						
	GW5K-ET	●	●	●		●		AS 4777.2	G83/2 G59/3 G99 G100				●	●
BT	GW5K-BT			●			●							
	GW6K-BT			●			●							
	GW8K-BT			●			●							
	GW10K-BT			●			●							
DSS	GW3600D-SS		●	●		●		AS 4777.2						
	GW4200D-SS		●	●		●		AS 4777.2						
	GW5000D-SS		●	●		●		AS 4777.2						
BK	GW1000-BH								G98					
	GW2000-BH								G98					
	GW3000-BH								G98					
EH	GW3600D-EH			●		●		AS 4777.2						
	GW5000D-EH			●		●		AS 4777.2						
	GW6000D-EH			●		●		AS 4777.2						

068 683 ia)	EN50530 (India)	KS C 8565/ 8564 (Korean)	CEI0-21 (Italy)	DEWA (Dubai)	RD1699 UNE (Spain)	ABNT NBR 16149/ 16150 (Brazil)	U2 1699B	Chile	EN50438+ VDE0126-1-1/A1 (Poland)	EN50438 (Sweden)	EN50438 (Netherlands)	IEEE1547 (America)	EN50438 (Irish)	EN50438 (Portugal)	IEC62891	IEEE1547
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GOODWE
GOOD CHOICE

www.goodwe.com

Note: The technical data above mentioned may be modified in order to reflect the continuous technical innovation and the improvements achieved by GoodWe's R & D team. GoodWe has the sole right to make such modification at any time without further notice. The GoodWe's customers have the right to request the latest version of the GoodWe products data sheets and all the commercial contracts that may be signed will be based on the most recent version of the data sheet at the moment of signing the contract.

GoodWe-Brochure-20190523-EN-V4.0. Information may be subject to change without notice during product improving.