



SDT & DT INVERTER INTRODUCTION

V2.0

SDT & DT Series Introduction



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Trouble Shooting



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Certificates

Warranty & Service

Domestic & Overseas Projects

Company Introduction



- Focus on developing and producing solar inverters and monitoring products.
- \$ **30** million register capital
- Over **100** R&D centre staff and **50** patents
- Five offices @ Suzhou in China , Melbourne in Australia, London in UK, Utrecht in the Netherlands



Good Quality Good Value
Good Service GoodWe



Mission : Improve the global environment, improve the quality of people's lives.

Vision : Where the sun shines, there is GoodWe!



GoodWe helps customers to save more energy and lower energy consumption. GoodWe actively practices environmental protection and advocates all staff to protect the environment. While meeting the challenges of a worldwide energy crisis, GoodWe tries its best to be a responsible community organisation. We are dedicated to creating a national brand with global leading technology. GoodWe remembers its social responsibilities on a daily basis. According to our company values, we use all resources available to fulfill our corporate social responsibility in five fields: public welfare, health care, environmental protection, disaster relief and voluntary activity.

Global Sites



Production Introduction

GoodWe R&D initiate research on DT series inverter since 2011, the first DT generation was released in 2012. With the great effort of GoodWe R&D people, GoodWe DT series are at the leading position of solar inverter industry.

Year 2011
Start Research on DT

Year 2016
Still Optimizing

Year 2012
First DT Inverter Sold

Feature of DT Series

Maximum
Efficiency up to
98.3%

European
Efficiency up to
98%

MPPT Efficiency
up to 99.9%



45° C full-load
output
(environmental)

IP65 dust-proof
and water-
proof

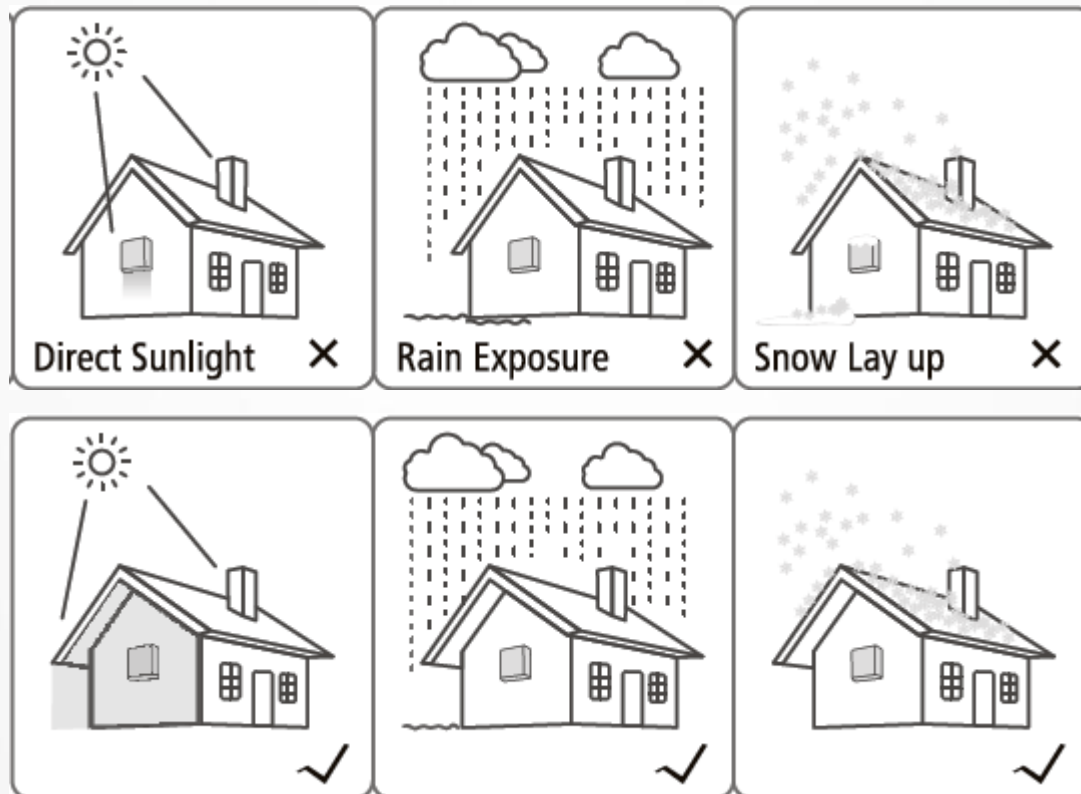
Multiple
monitoring and
communication



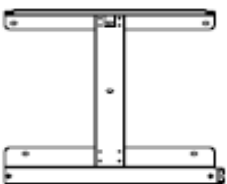
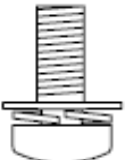
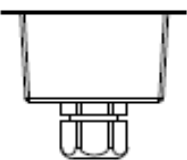
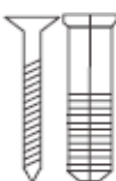
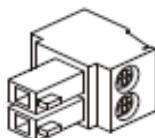
User Manual – Installation Guide

◆ Mounting Instruction

Note: Every GoodWe inverter has IP65 protection, the mounting instruction is for better performance and longer lifetime.



◆ Packing List

 Inverter×1	 Wall-mounted Bracket×1	 Positive DC Plug ^①	 Negative DC Plug ^②	 AC Terminal X6
 AC Junction Box screw X5	 AC connector×1	 Expansion screw×6	 Flat Head Screw×5	 User manual×1 Quick Installation Guidex1
 External WiFi module ×1 (WiFi model only)	 WiFi Connection Guidex1 (WiFi model only)	 6PIN terminal ^③	 2PIN terminal ^④	

① Positive DC Plug: 15~20kW 4 pairs; 12kWLV 4 pairs; 15kWLV,25kW 6 pairs; 4~10kW 2 pairs.

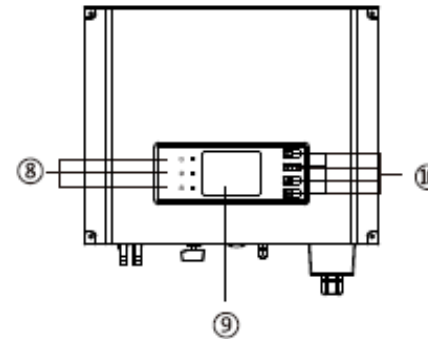
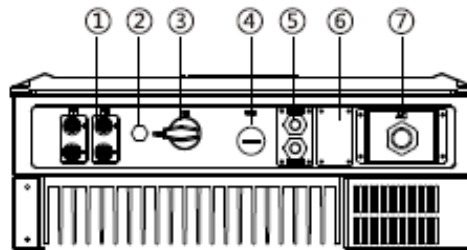
② Negative DC Plug: 15~20kW 4 pairs; 12kWLV 4 pairs; 15kWLV,25kW 6 pairs; 4~10kW 2 pairs.

③ 6PIN terminal: SDT:1pcs for RS485 communication(optional),1pcs for DRED(optional);DT1pcs for DRED(optional)

④ 2PIN terminal: SDT: 1pcs for Anti-Current (optional);DT:2PCS for RS485 communication(optional),1pcs for Anti-Current(optional)

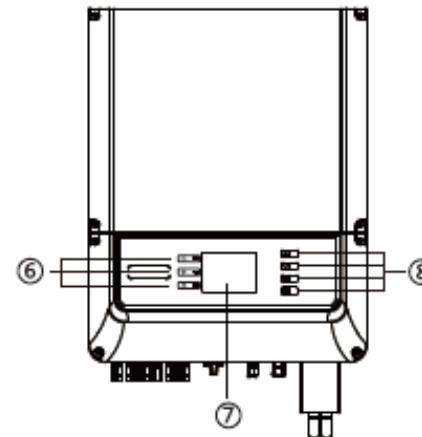
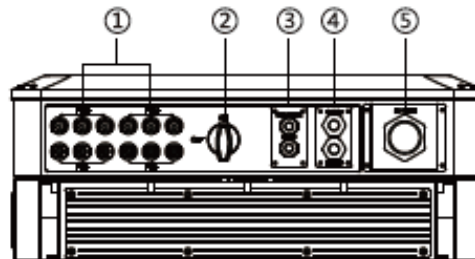
◆ Inverter Overview

SDT Series



1. PV input terminals
2. Waterproof vent
3. DC Switch (Optional)
4. USB port
5. RS485 port or External WiFi module
6. DRED & METER (optional)
7. AC output terminal
8. LED lights
9. LCD display
10. Buttons

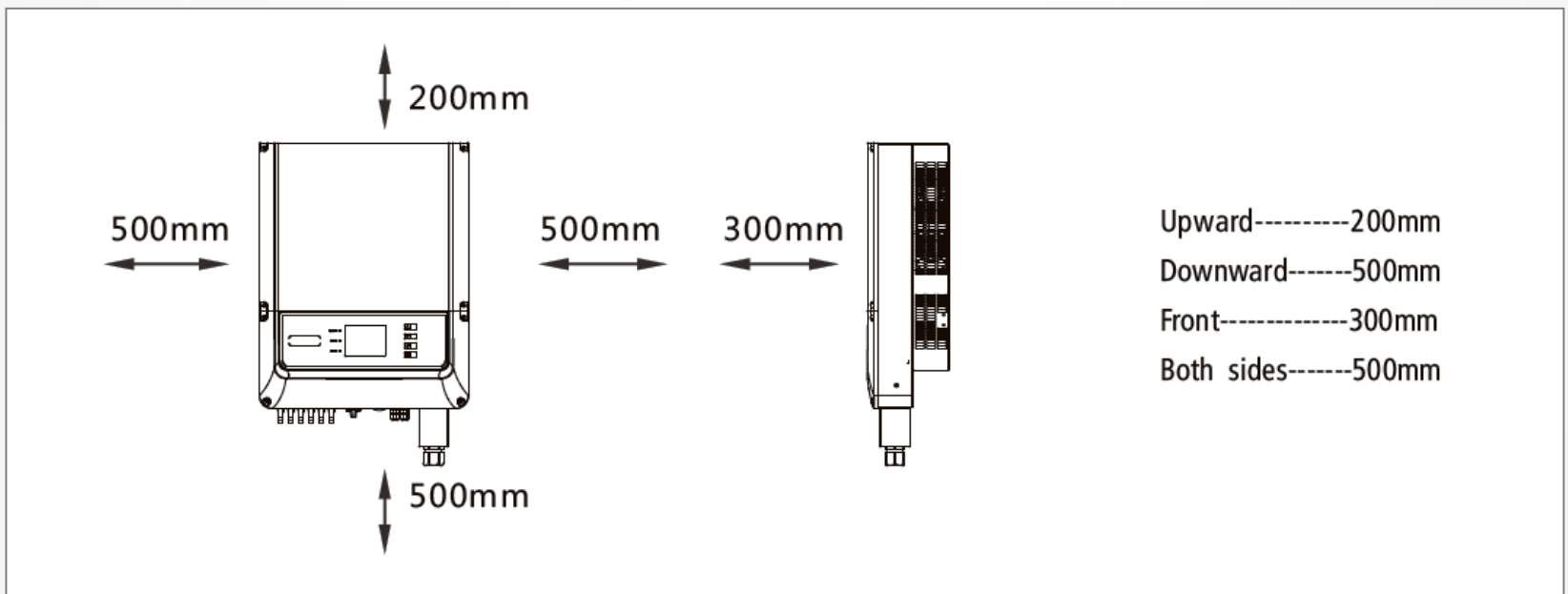
DT Series DC Input: 4 Pairs 6 Pairs



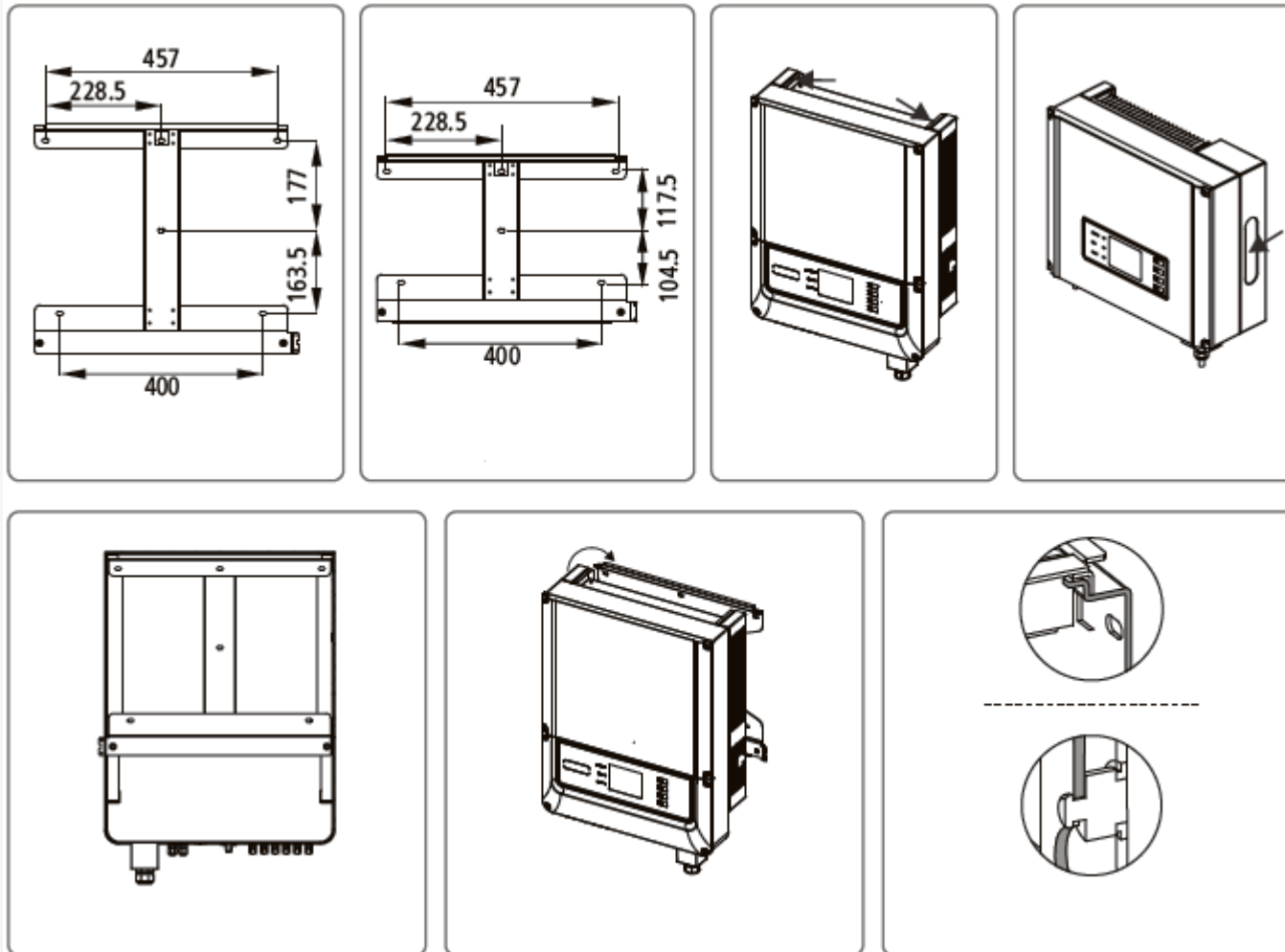
1. PV input terminals
2. DC Switch (Optional)
3. DRED & METER(Optional)
4. RS485 port or External WiFi module and USB port
5. AC output terminal
6. LCD display
7. LED lights
8. Buttons

◆ Installation Position

Note: Please install the inverter as the requirements below to make sure the inverter will have best performance and longer lifetime.

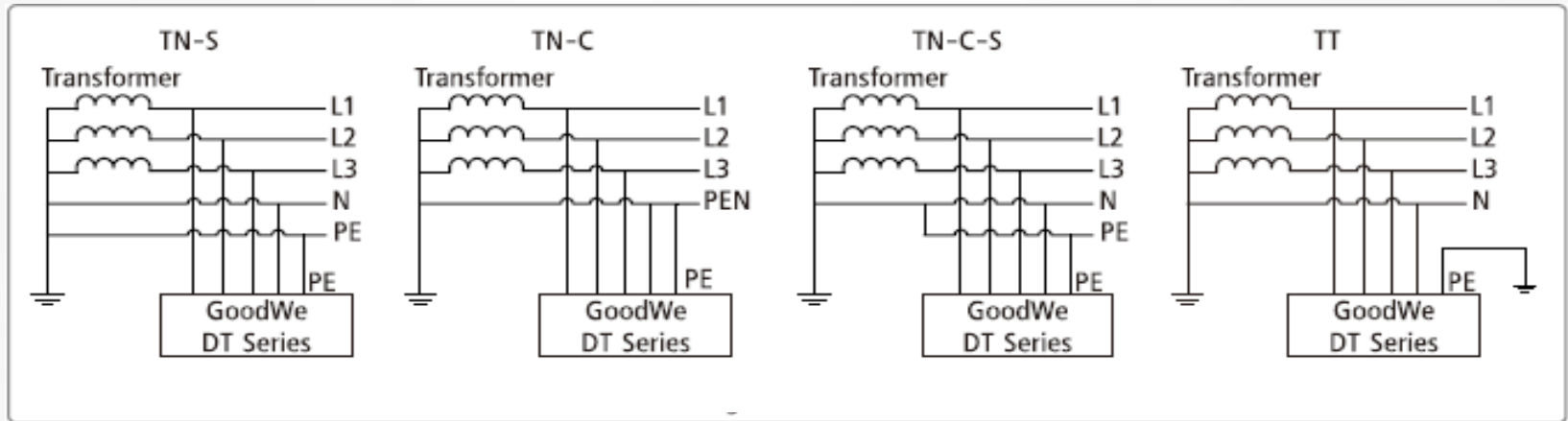


◆ Mounting Procedure

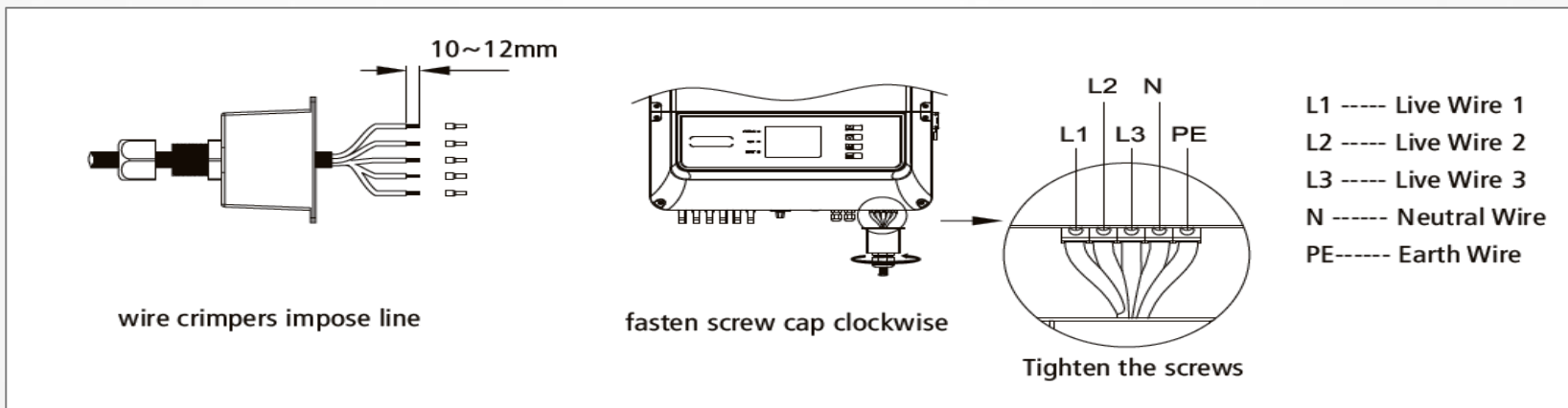


◆ AC Terminal Connection

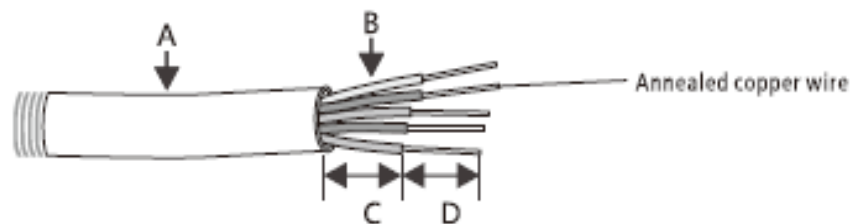
Note: GoodWe DT series GW09K-DT~GW25K-DT and SDT series support four different types of grid. Please refer to picture below.



Note : For TT grid structure, RMS voltage between neutral wire and earth wire must be less than 20V.



◆ AC cable illustration



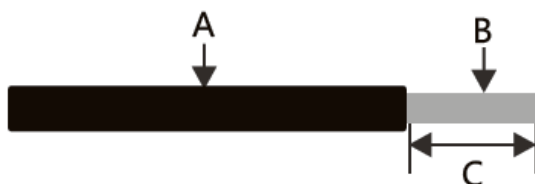
Grade	Description	Value
A	O.D.	DT: 15~30kW,12KLV,15KLV: 18~30mm; SDT: 4~10kW: 11~20mm
B	Copper Conductor Material Sectional Area*	DT: 15~30kW,12KLV,15KLV: 4~10mm ² ; SDT: 4~10kW: 4~8mm ²
C	Wire Length	45mm around
D	Bare Wire Length	12mm around

*Value of Copper Conductor Material Sectional Area refers to the following table

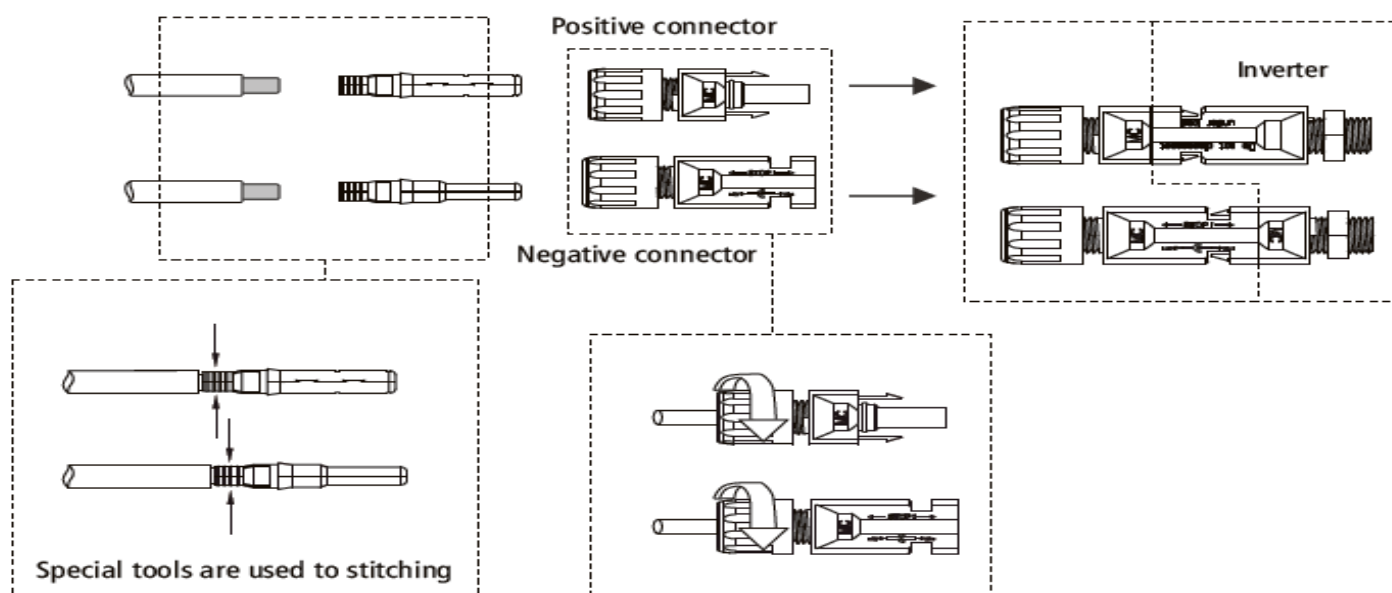
Model	Copper Conductor Material Sectional Area
GW12KLV-DT	6~10mm ²
GW15KLV-DT	10~25mm ²
GW015K-DT	4~10mm ²

Model	Conductor Material Sectional Area
GW017K-DT	4~10mm ²
GW020K-DT	6~10mm ²
GW025K-DT	10~25mm ²
GW030K-DT	10~25mm ²

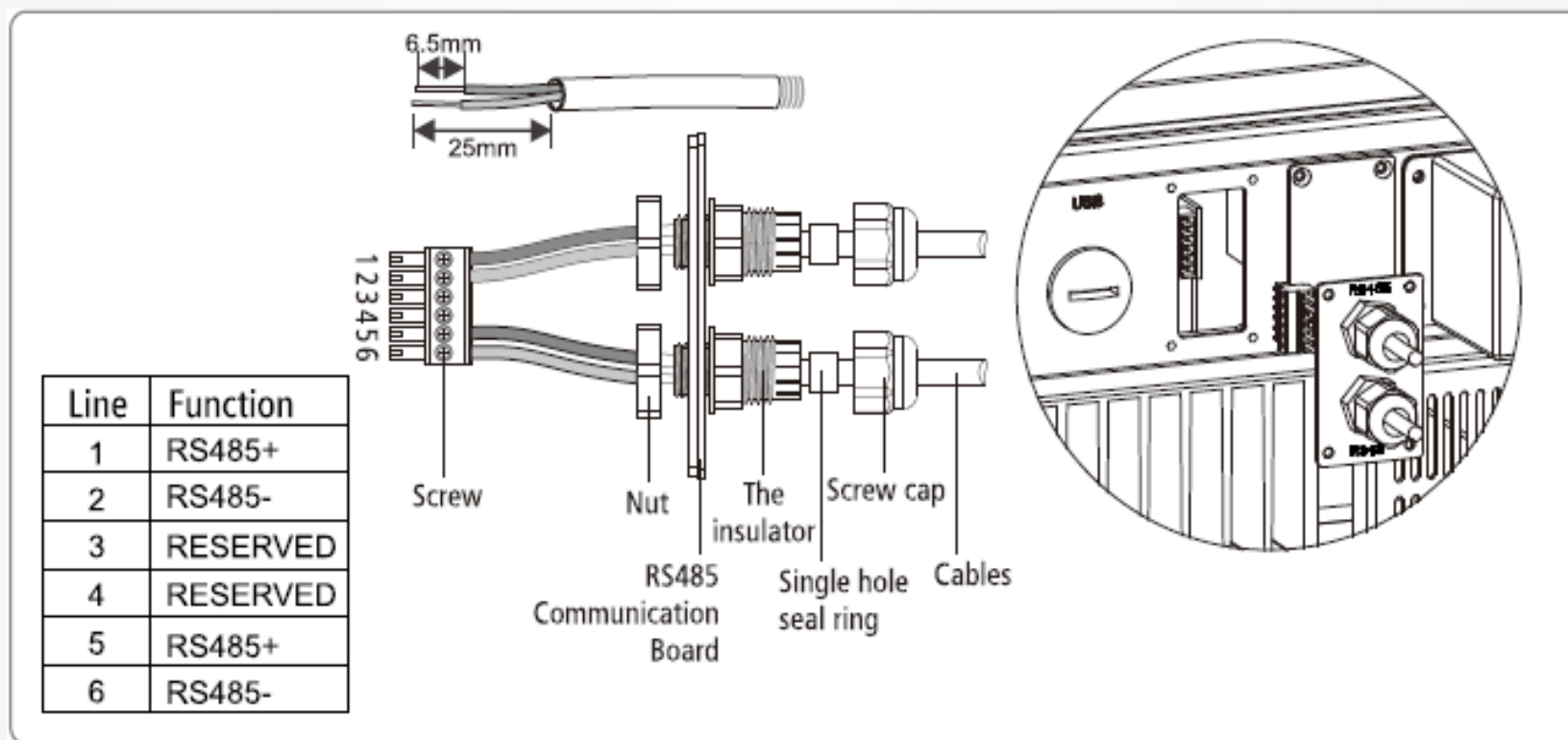
◆ DC Terminal Connection



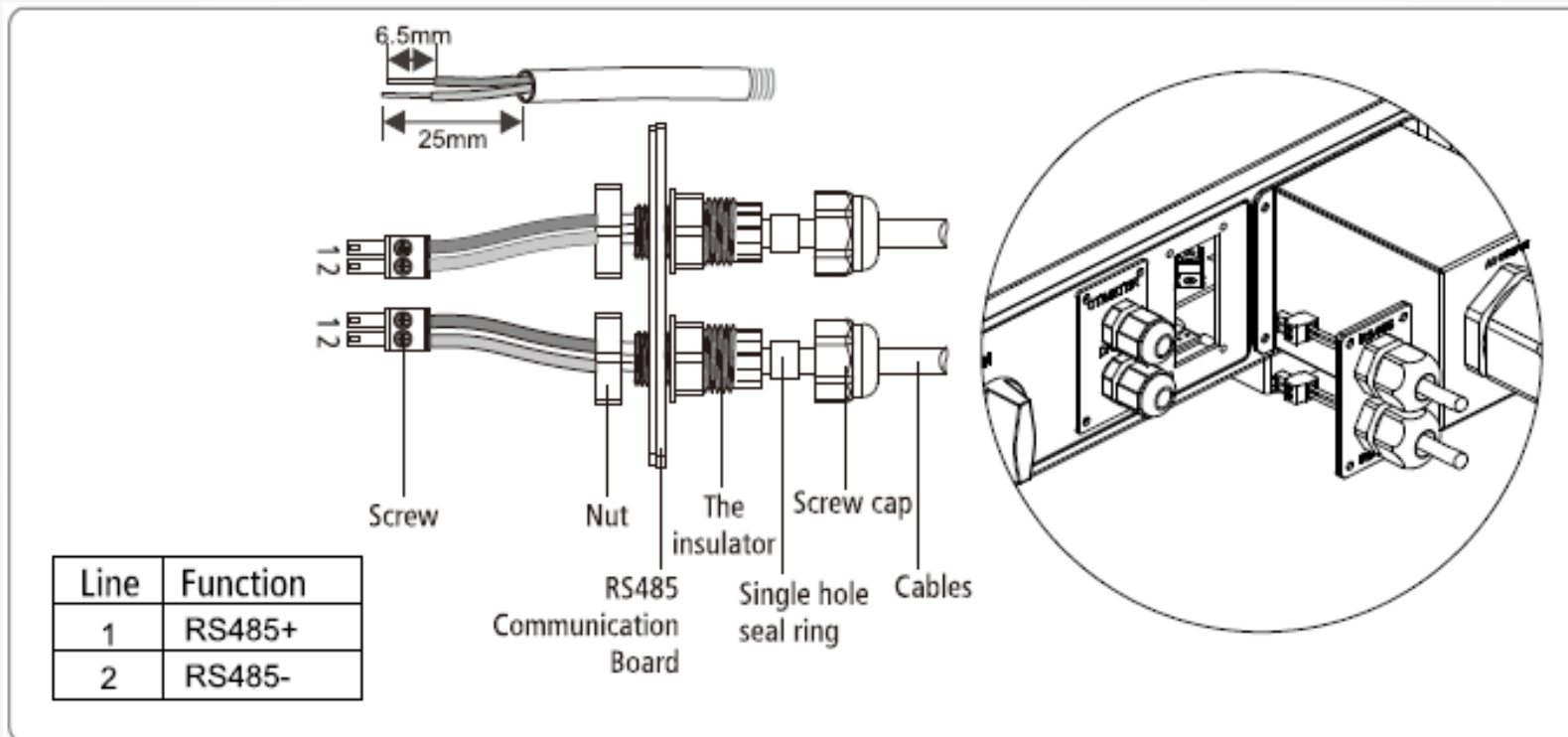
Grade	Description	Value
A	O.D.	4~5mm
B	Conductor Material Sectional Area	2.5~4mm ²
C	Bare Wire Length	7mm around



◆ SDT RS485 Communication

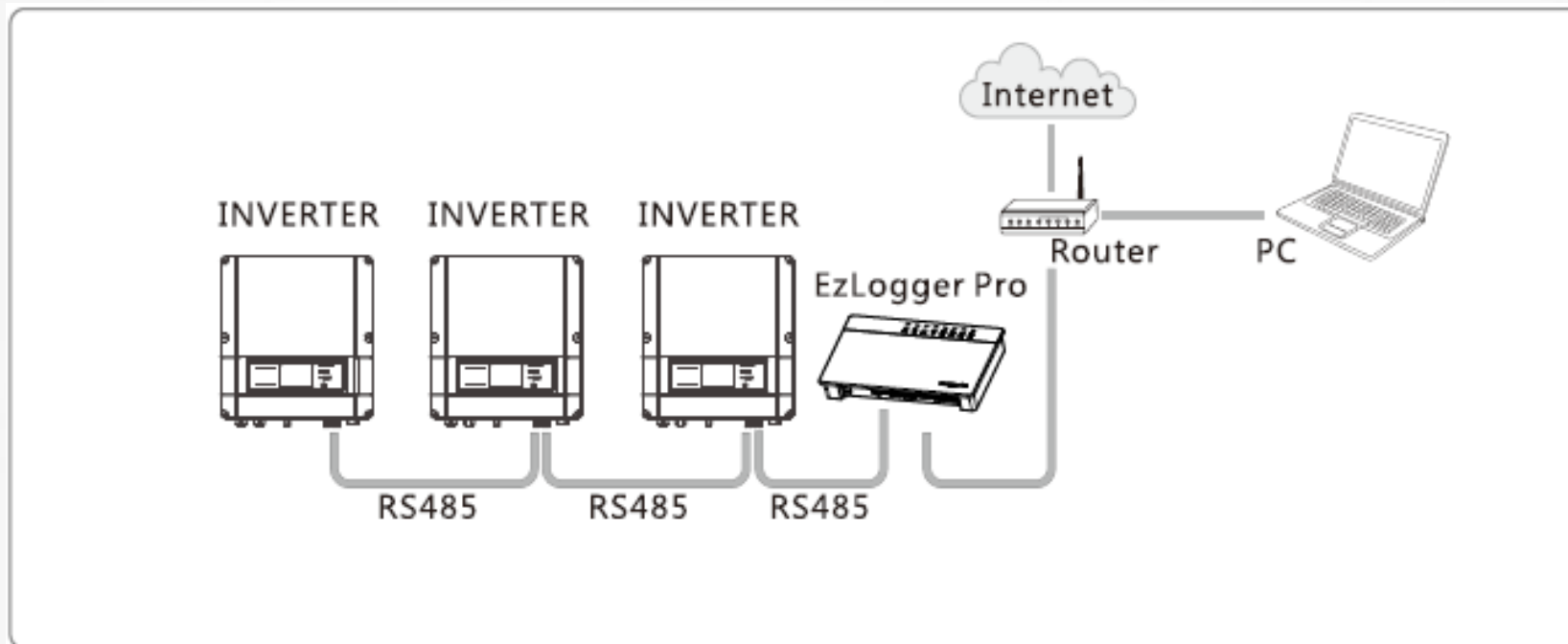


◆ DT RS485 Communication



(2) Connect the inverter to EzLogger Pro with RS485 cable, and EzLogger Pro to switch or router with CAT5E STP cable.

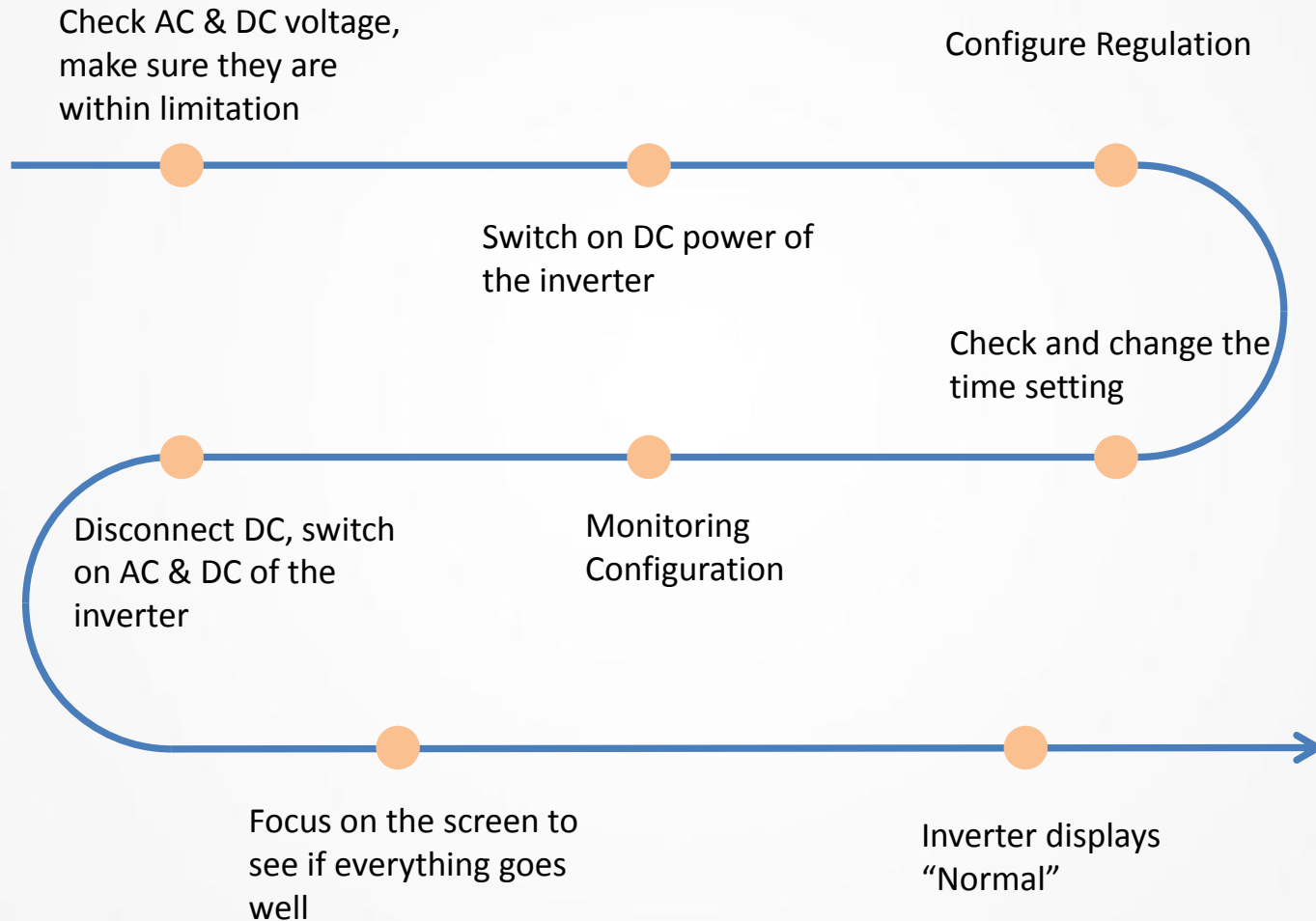
◆ RS485 Connection



User Manual -- Booting-Up Process



Start-Up Process



Monitoring Configuration

◆ Monitoring Configuration – WiFi Inverter

1. Preparation

- 1.1 Power WiFi inverter (or EzLogger Pro WiFi) on.
- 1.2 If you are configuring WiFi inverter, make sure the yellow LED on front cover is blinking. Otherwise please set WiFi reload through inverter.
- 1.3 Power WiFi router on.
- 1.4 Switch on the WiFi of laptop.

2. Connect laptop to “Solar-WiFi”

- 2.1 Search WiFi network and connect to “Solar-WiFi” (Password: 12345678).



◆ Monitoring Configuration – WiFi Inverter

2.2 Browse website: <http://10.10.100.253>



2.3 Enter User Name: “admin”, Password: “admin”.



◆ Monitoring Configuration – WiFi Inverter

3. Click 'Start Setup'

Device information	
Firmware version	4.02.11.gdw04
Wireless AP mode	Enable
SSID	Solar-WiFi
IP address	10.10.100.254
MAC address	AC:CF:23:11:40:C0
Wireless STA mode	Enable
Router SSID	WiFi_Burn-in
Signal Quality	0%
IP address	0.0.0.0
MAC address	AC:CF:23:11:40:C1
Remote server information 	
Remote server	Unpingable
Start Setup	

The Wi-Fi module parameters please refer to 'Device information' column above. Clicking refresh icon  can update the connection status with portal.

◆ Monitoring Configuration – WiFi Inverter

4. Select WiFi router's SSID and click 'Next'

Please select your current wireless network:

Site Survey

SSID	RSSI	Channel	Encryption algorithm	Encryption method
☒ WiFi-Test	100%	6	AES	WPA2PSK

★Note: When RSSI of the selected WiFi network is lower than 15%, the connection may be unstable, please select other available network or shorten the distance between the device and router.

If the router is not in the site list, please click 'Refresh', or you can click 'Next' and add it manually.

◆ Monitoring Configuration – WiFi Inverter

5. Type in password and click 'Next'

Add wireless network manually:

Network name (SSID)
(Note: case sensitive)

Encryption method

Encryption algorithm

Please enter the wireless network password:

Password (8-64 bytes)
(Note: case sensitive)

☒ Show Password

Connecting ...

**Wi-Fi module will try connecting Wi-Fi router.
Please make sure all parameters of wireless network
are matched with the router, including password.**



10.10.100.253:

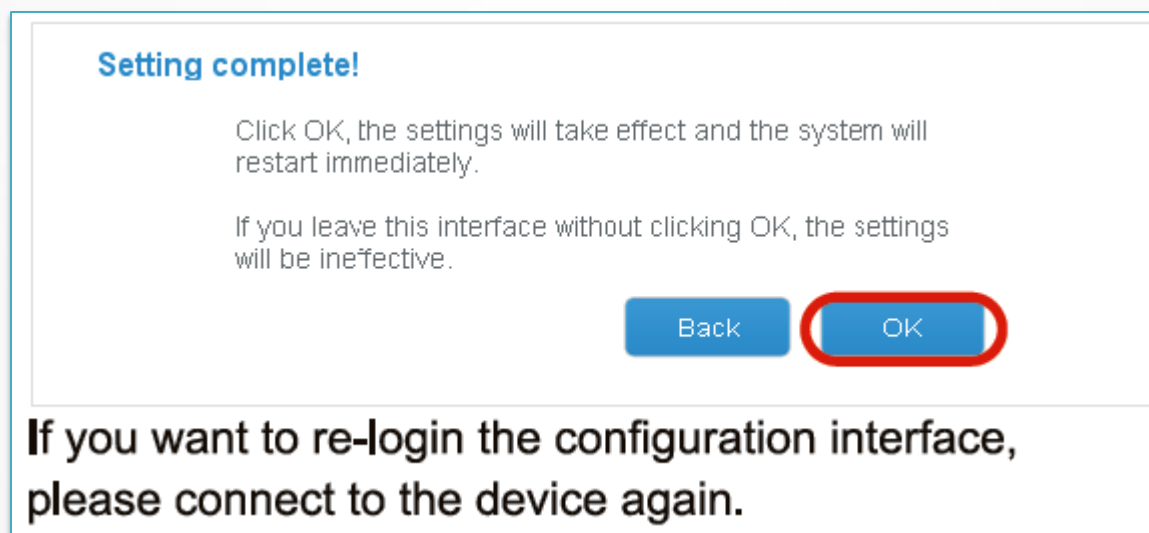
Connection to WiFi network failed, invalid encryption method or wrong passwords.

If it fails, there will be a notice. Click 'OK', and confirm all parameters are matched with the router, then try again.

Note: If it fails, there will be a notice.

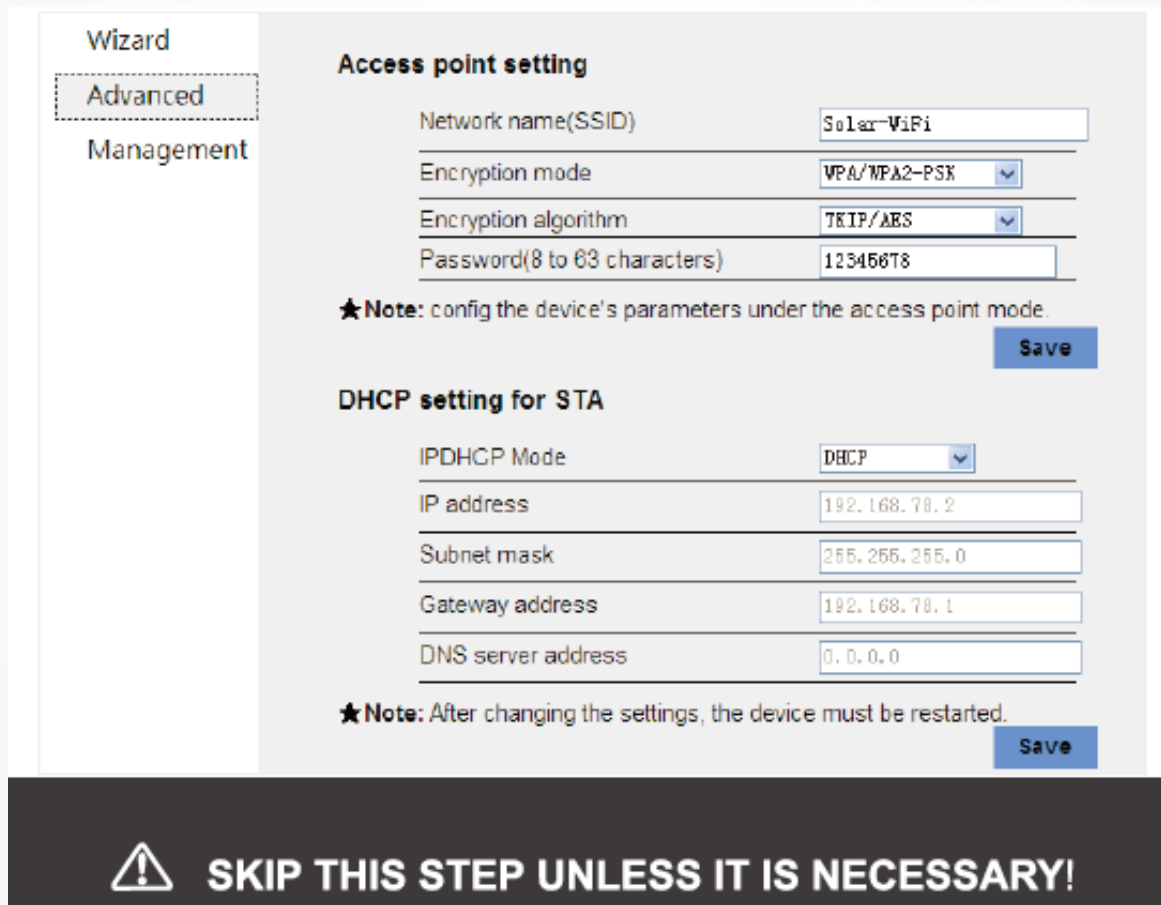
◆ Monitoring Configuration – WiFi Inverter

6. Click 'OK' and configuration process completes.



◆ Monitoring Configuration – WiFi Inverter

Note: If you want to modify the SSID and password of the inverter's WiFi, please refer to picture below.

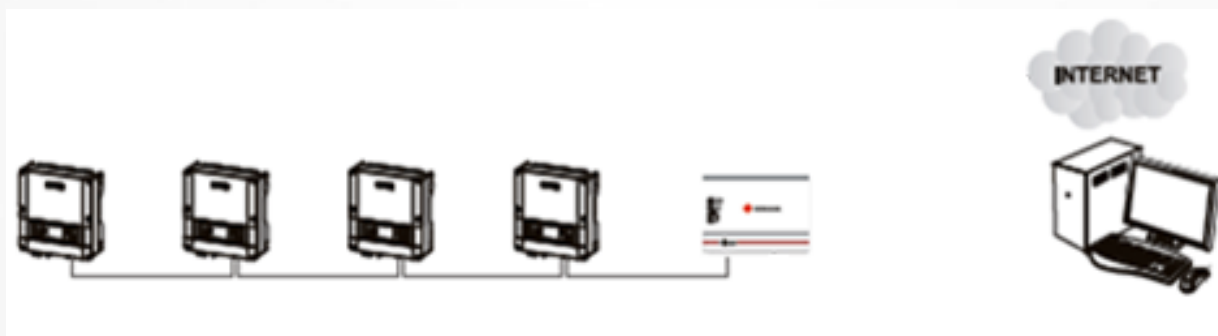


The screenshot displays the configuration interface for a WiFi Inverter. On the left, a sidebar contains three menu items: 'Wizard', 'Advanced' (which is highlighted with a dashed border), and 'Management'. The main content area is divided into two sections. The first section, 'Access point setting', includes four input fields: 'Network name(SSID)' with the value 'Solar-WiFi', 'Encryption mode' set to 'WPA/WPA2-PSK', 'Encryption algorithm' set to 'TKIP/AES', and 'Password(8 to 63 characters)' with the value '12345678'. Below these fields is a note: '★Note: config the device's parameters under the access point mode.' and a 'Save' button. The second section, 'DHCP setting for STA', includes five input fields: 'IPDHCP Mode' set to 'DHCP', 'IP address' with the value '192.168.78.2', 'Subnet mask' with the value '255.255.255.0', 'Gateway address' with the value '192.168.78.1', and 'DNS server address' with the value '0.0.0.0'. Below these fields is another note: '★Note: After changing the settings, the device must be restarted.' and a 'Save' button. At the bottom of the interface, a dark banner contains a warning icon (a triangle with an exclamation mark) and the text 'SKIP THIS STEP UNLESS IT IS NECESSARY!'.

8、 Disconnect the inverter WiFi, and connect to the local WiFi, create a station in GoodWe portal with the SN and check code. System will be online in the portal.

Portal Website: www.goodwe-power.com.

(Refer to picture as below)



◆ Monitoring Configuration – RS485 Inverter with Ezlogger Pro

1) There are three types of Ezlogger Pro, LAN、WiFi and GPRS.

1.1 If using the Ezlogger Pro-WiFi, please follow the page 25-31 to do the configuration. As the steps are completely the same as configuring a WiFi inverter.

1.2 If using Ezlogger Pro-LAN, follow the steps below to configure the monitoring.

• EZLOGGER PRO-- LAN

1

- Unpack the Ezlogger Pro , check if any missing accessory;

2

- Install the Ezlogger Pro to the target position;

3

- Connect the adapter;

4

- Device Connection;
 - A: Connect the inverter to the Ezlogger Pro ;
 - B: Connect the COM port to PC.

5

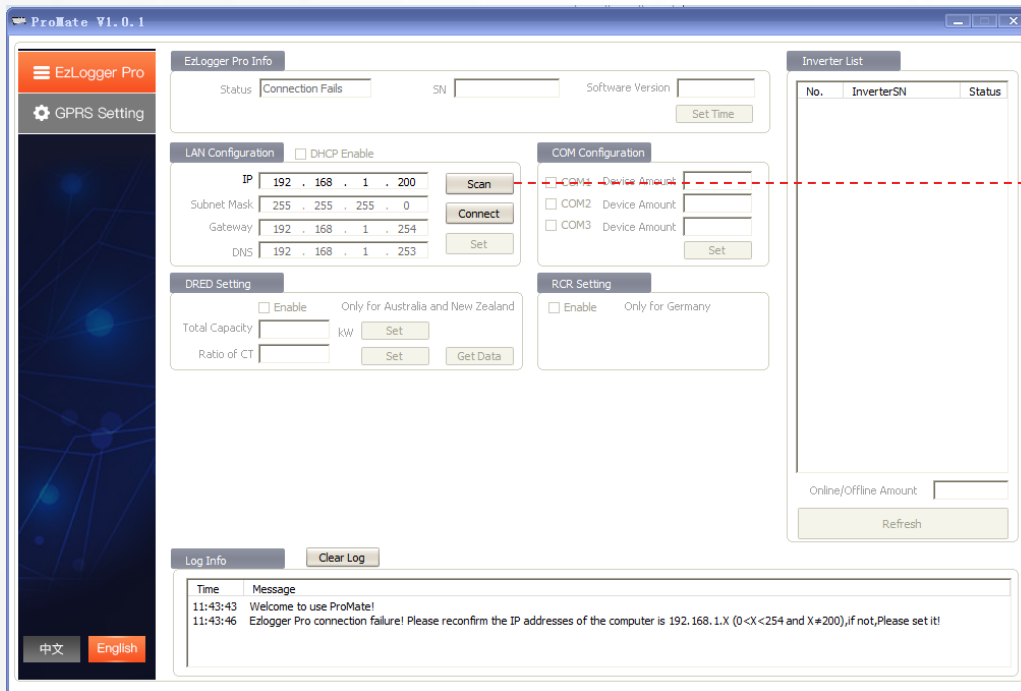
- Start to configure the Ezlogger Pro.

• EZLOGGER PRO-- LAN

EzLogger Pro connects to ProMate with dynamic IP and static IP

Dynamic IP mode

EzLogger Pro starts with dynamic IP as default , the user only needs to connect inverter , EzLogger Pro and router together with router DHCP function . Also can refer to below steps to operate with ProMate.



The user only needs to connect EzLogger Pro and computer to router and open DHCP function , click 'Scan' to connect in ProMate as picture showed.

- **EZLOGGER PRO-- LAN**

Static IP mode

If need to start EzLogger Pro with static IP mode , press Restore button with 10s then EzLogger Pro will change to static IP mode(default IP : 192.168.1.200) , then configure IP address for computer as the same with EzLogger Pro , the steps are as below:

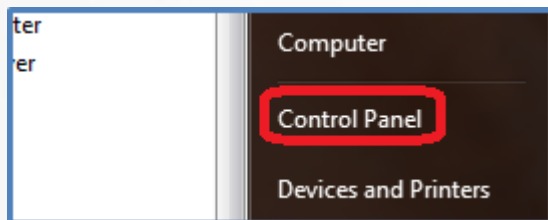


Fig 1. Click 'Start', and Click 'Control Panel'.

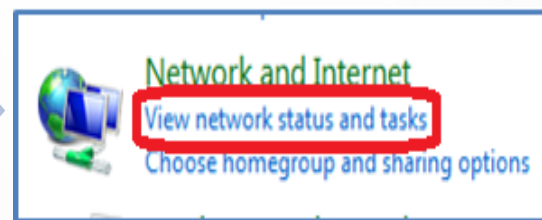


Fig 2. Click 'View network status and tasks.'

• EZLOGGER PRO-- LAN

- Local Area Connection

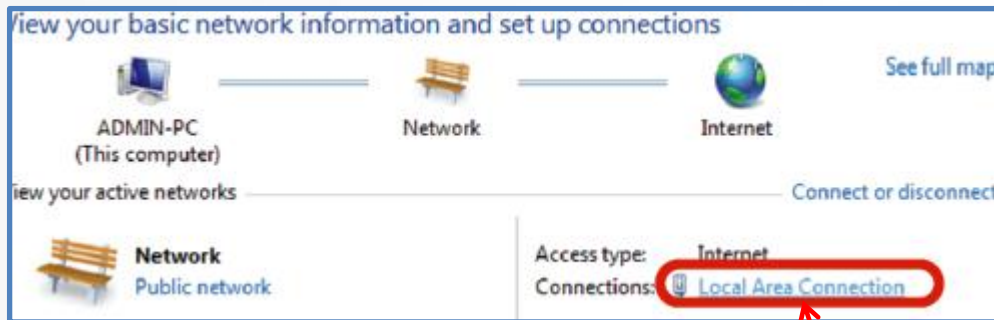
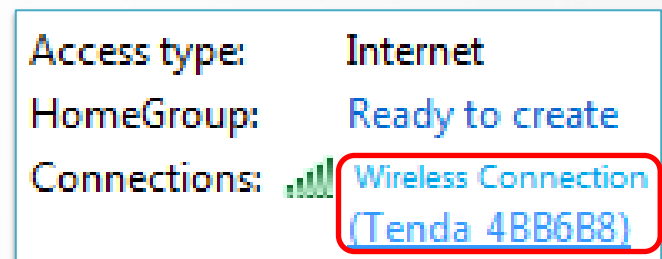


Fig 3. Click 'Local Area Connection'.

Note: The “Local Area Connection” option will only appear when the net port is connected.

- Wireless Connection



- **EZLOGGER PRO-- LAN**

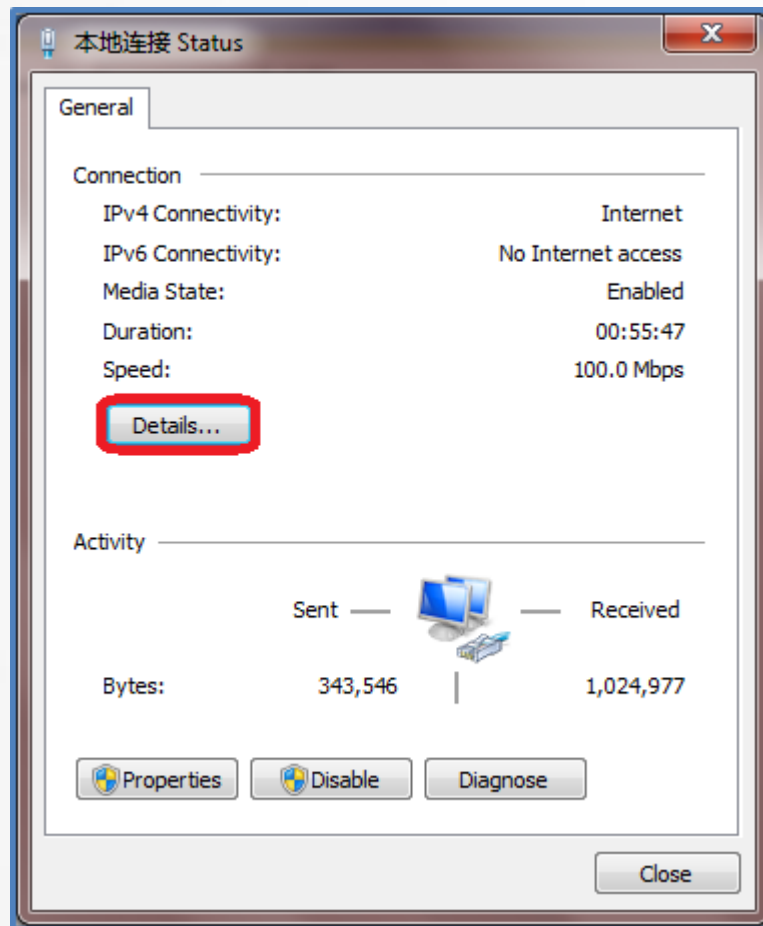


Fig 4. Click 'Details'

- **EZLOGGER PRO-- LAN**

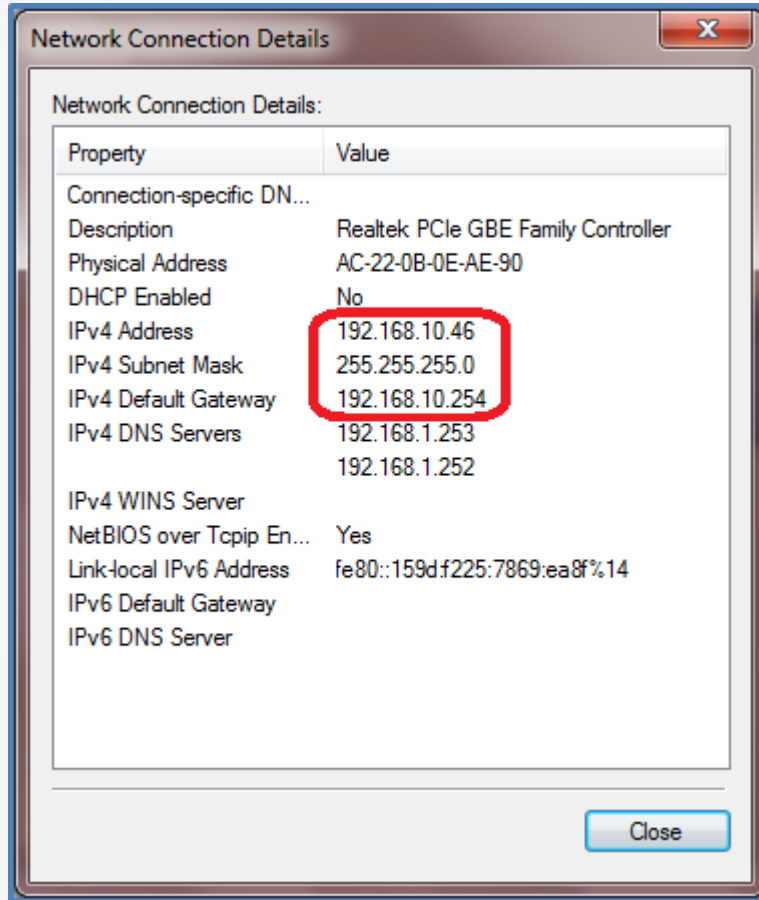
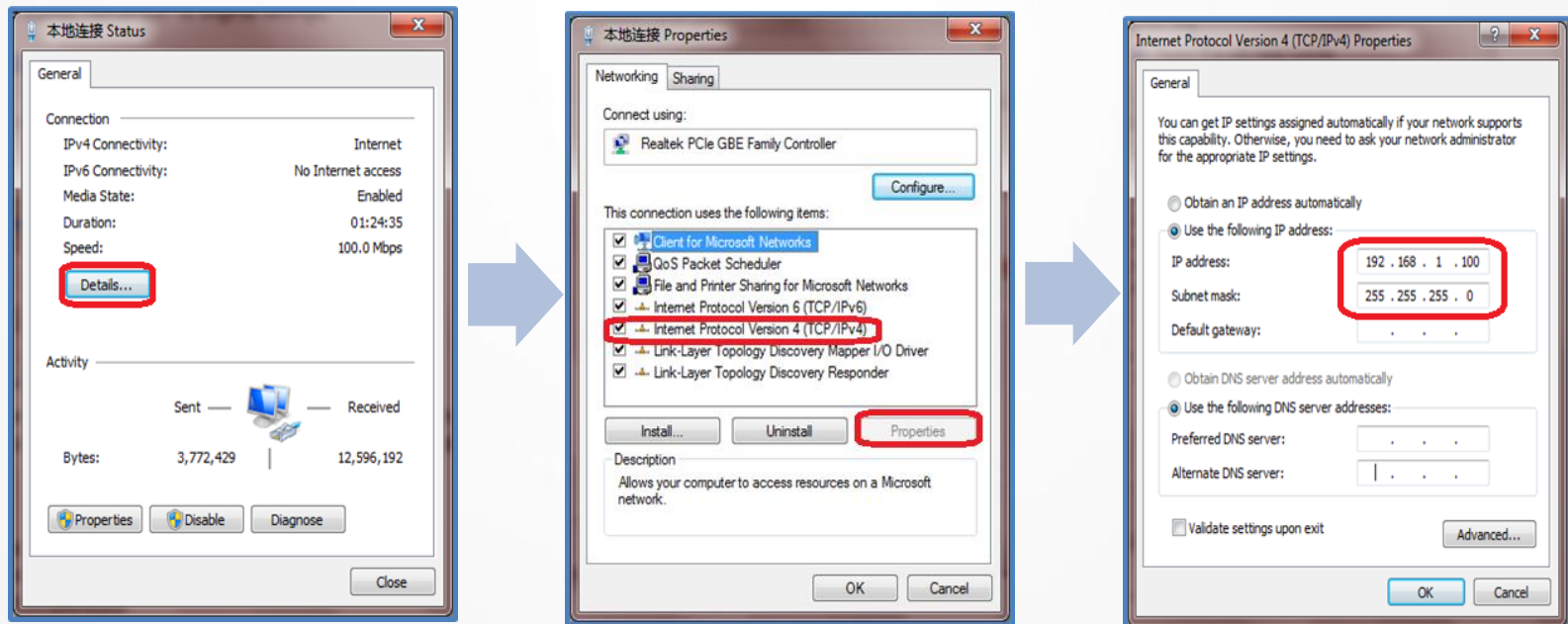


Fig 5. Record the 3 items in Fig 5, which will be useful later.

• EZLOGGER PRO-- LAN

2、 Connect the Ezlogger with laptop via STP;

3、 Set the local area IP Address to 192.168.1.100 on the laptop.;



- **EZLOGGER PRO-- LAN**

1、Run program ProMate on the laptop;

1. The program is in the USB disk in Ezlogger box.
2. If the USB disk is missing, please download ProMate from GoodWe website and install the program on the laptop.

2、The connection status display as 'Connection Succeeds', and EzLogger Pro SN and software version will come out soon;



The screenshot displays the EzLogger Pro software interface. On the left, there is a sidebar with two buttons: 'EzLogger Pro' (orange) and 'GPRS Setting' (grey). The main area is titled 'EzLogger Pro Info' and contains the following fields:

Field	Value
Status	Connection Fails
SN	
Software Version	

A 'Set Time' button is located at the bottom right of the main area.

- **EZLOGGER PRO-- LAN**

3、 Click the refresh button, then all inverter's SN will be listed;

If any inverter is missing, please check the cable connection off the inverter.

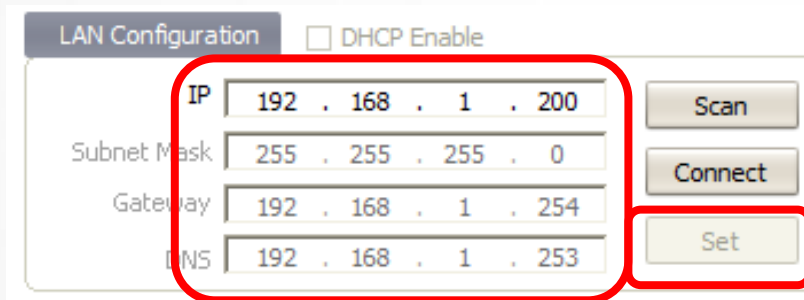


InverterSN	Status
14000SSU12300214	OnLine
1006KDTU11700001	OnLine

Refresh

- **EZLOGGER PRO -- LAN**

4、 Modify the IP Address, Subnet Mask, Gateway to the one recorded (Refer to Page 12);



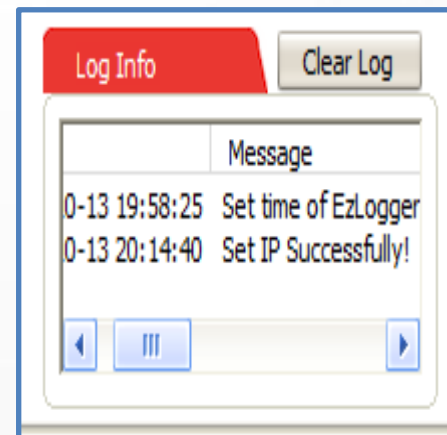
LAN Configuration ☐ DHCP Enable

IP	192 . 168 . 1 . 200
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 1 . 254
DNS	192 . 168 . 1 . 253

Buttons: Scan, Connect, Set

A red box highlights the IP, Subnet Mask, and Gateway fields. A red arrow points to the 'Set' button.

5、 Press 'Set', find 'Set IP Successfully!' in 'Log Info';



Log Info

Message	
0-13 19:58:25	Set time of EzLogger
0-13 20:14:40	Set IP Successfully!

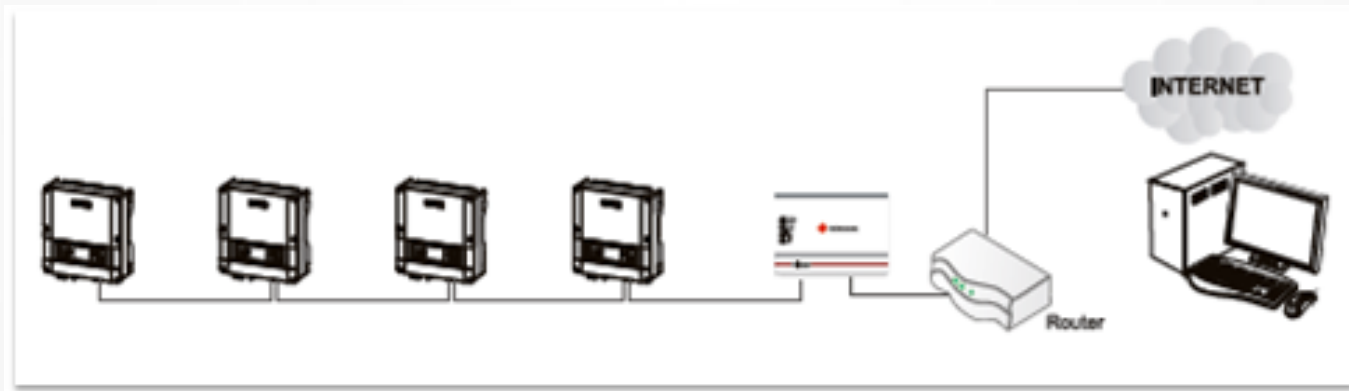
Navigation buttons: Previous, Stop, Next

- **EZLOGGER PRO-- LAN**

6、 Then Disconnect the laptop, and connect the net port to the router, create a station in GoodWe portal with the SN and check code. System will be online in the portal.

Portal Website: www.goodwe-power.com.

(Refer to picture as below)



• EZLOGGER PRO-- LAN

Solution 2:

Please follow the steps below to configure the Ezlogger Pro to communicate the router with **dynamic IP address**.

1、 Run program ProMate on the laptop;

1. The program is in the USB disk in Ezlogger Pro box.
2. If the USB disk is missing, please download EzConfig from GoodWe website and install the program on the laptop.

2、 The connection status display as 'Connection Succeeds', and EzLogger Pro SN and software version will come out soon;



EzLogger Pro Info		
Status	Connection Fails	SN
		Software Version
		Set Time

- **EZLOGGER PRO-- LAN**

3、 Click the refresh button, then all inverter's SN will be listed;

If any inverter is missing, please check the cable connection off the inverter.

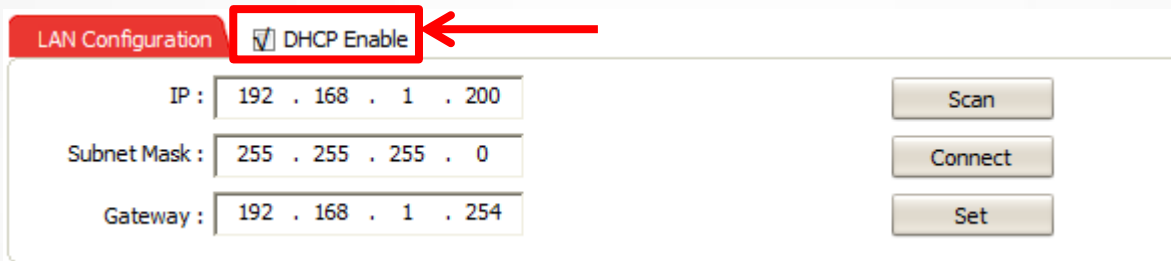


InverterSN	Status
14000SSU12300214	OnLine
1006KDTU11700001	OnLine

Refresh

• EZLOGGER PRO-- LAN

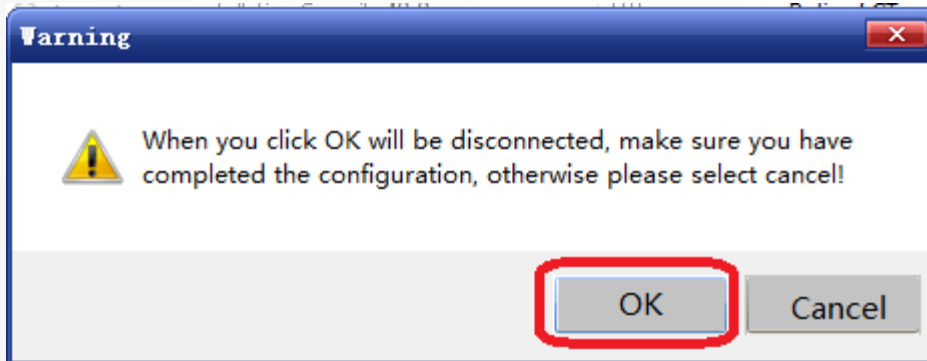
4、 Find 'LAN Configuration' part in the window;



The image shows the 'LAN Configuration' window. The 'DHCP Enable' checkbox is checked and highlighted with a red box and an arrow. The IP address is 192.168.1.200, Subnet Mask is 255.255.255.0, and Gateway is 192.168.1.254. There are buttons for 'Scan', 'Connect', and 'Set'.

LAN Configuration	
☒ DHCP Enable	
IP :	192 . 168 . 1 . 200
Subnet Mask :	255 . 255 . 255 . 0
Gateway :	192 . 168 . 1 . 254
	<button>Scan</button>
	<button>Connect</button>
	<button>Set</button>

5、 Click 'DHCP Enable', and there will be a warning displayed, click 'OK', find DHCP Enable successfully in Log Info.

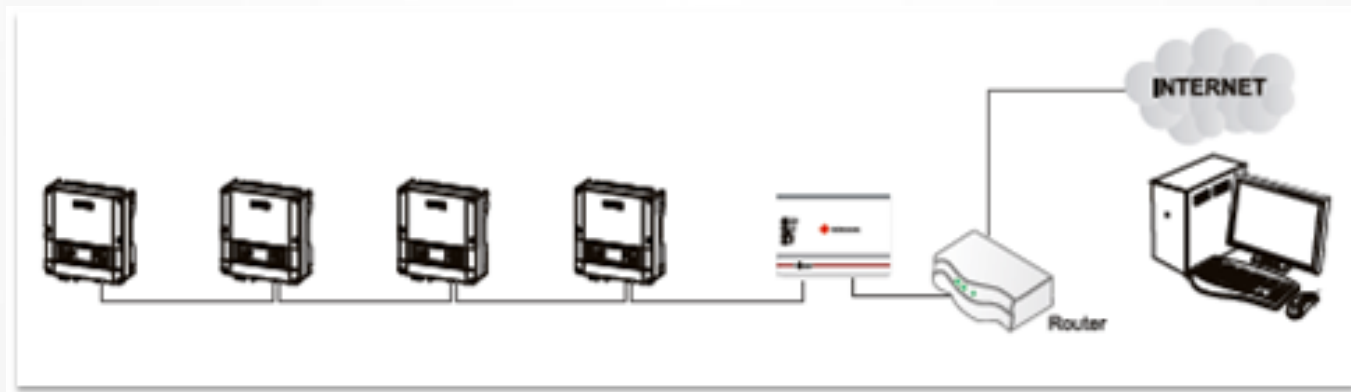


- **EZLOGGER -- LAN**

6、 Then Disconnect the laptop, and connect the net port to the router, create a station in GoodWe portal with the SN and check code. System will be online in the portal.

Portal Website: www.goodwe-power.com.

(Refer to picture as below)



User Manual -- Trouble Shooting

Error Code	Fault Message
23	Utility Loss
14	Isolation Failure
07	Relay Check Failure
15	Vac Failure
22	Ground I Failure
03	Fac Failure
17	PV Over Voltage
19	Over Temperature

Error Code	Fault Message
24, 31	AC HCT Failure
32	GFCI Failure
N/A	Waiting
N/A	Blank
N/A	Reconnecting
N/A	Low Generation
N/A	Display Fault
N/A	Button Fault

Utility Loss

Cause: Inverter detects no grid connected, Error Code: 23

Measurement:

1. First Installed

- ① Check if the AC connection is correct, if L, N, PE are connected correctly and fastened. If not, please reconnect the cables;
- ② Check if the AC switch is at 'ON' position, if not, please switch it on;
- ③ Measure the AC voltage, if no voltage, please check if the grid is off. If there is voltage, and all above are OK, please contact with your installer or GoodWe local service center.

2. Fault after inverter running for a while

- ① Check if grid is disconnected, if grid is connected, please check the next step;
- ② Check if the AC switch is 'ON', if yes, please check the next step;
- ③ Check the value of 'VL1、 VL2、 VL3' are normal;
- ④ Switch off the AC power and wait for 5 minutes, measure the L and N to ground via multimeter (The impedance should be more than 200K Ω), if the value is less than 200K Ω , please contact with your installer or GoodWe local service center.

Isolation Failure

Cause: Inverter detects impedance of DC to ground is too low Error Code : 14

Measurement:

- 1: Check when the fault happened, if it was at dark, dawn or on rainy days, the inverter should be find. As during those time, the humidity is high, which makes the impedance lower than normal time, so the inverter will display ISO fault;
- 2: Measure the impedance of PV to ground, the impedance should be more than $2M\Omega$; If the impedance is too low, please check the insulation of PV modules;
- 3: Measure the impedance of Line N to ground, the value should be close to zero; If not, please check the AC wiring;
- 4: Please check the firmware version, you can try to upgrade the firmware to fix the problem (As the regulations are always changing, the threshold in the firmware are also updating).
- 5: If all above are Ok, please contact with your installer or GoodWe local service center.

Relay-check failure

Cause: Output Relay Fault, Error Code : 07

Measurement:

- 1: Switch on AC & DC power of the inverter, listen to the inverter to see if there is click of relay when inverter self-checking;
- 2: If there is no click of relay during checking time, remove the cover and reconnect the ribbon between the control board and inverter, then do step 1 again;
- 3: If problem still remains, please contact with your installer or GoodWe local service center.

Vac Failure

Cause: AC voltage is out of regulation, Error code : 15

Measurement:

- 1: Measure the AC voltage when inverter display 'Vac Failure' to see if it is within the range;
- 2: If not within the range, please contact with your installer;
- 3: Measure the voltage of Line N and PE, this value should be less than 1V, if abnormal, please check the AC connection;
- 4: Check if the Line L, N, PE are connected correctly, if not, please check the AC connection.

Ground I Failure

Cause: Inverter detects too much current leakage, Error Code : 22

Measurement:

1: Disconnect all PV strings, then connect each string to the inverter one by one, please check the connection of the very string which can lead to the fault;

2: If the fault only happen when rainy days or dark/ dawn, the problem could be of the aging of PV modules, the fault will disappear when weather is fine; The customer can upgrade the firmware to fix the problem.

Customer claim for Ground I Failure, and GoodWe technical check the system on-site, which was finally confirmed to the problem of broken cable of the forth string. After dealing with the cable, the fault disappears.



Fac Failure

Cause: The AC frequency is out of regulation, Error Code : 03

Measurement:

- 1: Make sure AC is on;
- 2: Check if the regulation is correct, as some regulations frequency in the firmware are 60Hz;
- 3: If the fault only happens a few times in a day, the problem could be of the float of grid network.
- 4: Check the Fac displayed in the screen, if it is out of range, please modify the range of frequency with 'Calibrate Tool'.

PV Over Voltage

Cause: DC input voltage is out of range, Error Code : 17

Measurement:

- 1: Measure the open voltage of each string, make sure it is within the spec. of the inverter;
- 2: If the voltage is within the range, please check the Vpv displayed in the screen to see if it is the same as the voltage measured from the internal DC side of the inverter. If not, please replace the control board;
- 3: If problem remains, please contact with your installer or GoodWe local service center.

Over Temperature

Cause: Inverter detects temperature is too high, Error Code : 19

Measurement:

- 1: Check if the installation position is the same as the requirement of user manual;
- 2: Try to decrease the environmental temperature;
- 3: Shut down the inverter for 15 minutes, then restart it;
- 4: If problem remains, please contact with your installer or GoodWe local service center.

AC HCT Failure

Cause: AC output current sensor failure, Error Code : 31

Measurement:

- 1: Switch off AC & DC power of the inverter for 15 minutes, then restart it;
- 2: If problem remains, please contact with your installer or GoodWe local service center.

GFCI Failure

Cause: Current leakage detecting device failure, Error Code : 32

Measurement:

1: Try to upgrade the firmware of the inverter;

2: If problem remains, please contact with your installer or GoodWe local service center.

Waiting

State: Inverter always display 'Waiting'

Solution:

1: Regulation Problem

- Switch on DC and keep AC off, inverter will display 'Configure Safety', long press the button to enter the regulation list, then find the correct country setting;
- Switch on AC & DC, inverter will display 'Waiting' without generation, long press the button to enter the regulation list, then find the correct country setting.

2: DC input voltage is too low

Measure the DC voltage of PV string when connecting to the inverter, check if it is enough to startup the inverter.

Blank

State: Nothing displayed in the screen

Solution:

1: First Installed

1.1: Measure the DC voltage to make sure it is over startup voltage;

1.2: Check if the poles are connected correctly;

2: Operating for a while

2.1: Check if the AC & DC connectors are damaged;

2.2: Disconnect AC & DC for 15 minutes, then reconnect;

3: If problem remains, please contact with your installer or GoodWe local service center.

Reconnecting

State: Inverter always display 'Checking', can not generate normally

Solution:

1: If condition only happen at dawn, dark or rainy days, please ignore this fault. As there is not enough energy to startup the inverter.

2: If the inverter is first installed, please check the DC & AC connection, especially Line N and PE connection;

3: Operating for a while

3.1 Check if any fault information displayed during checking time;

3.2 Check if the PV voltage is enough to start up the inverter;

3.3 Check if the regulation is correct;

3.4 Check the exact second counting down to, then feed the information back to GoodWe local service center.

Low Generation

State: E-Day in the inverter or portal is too low

Solution:

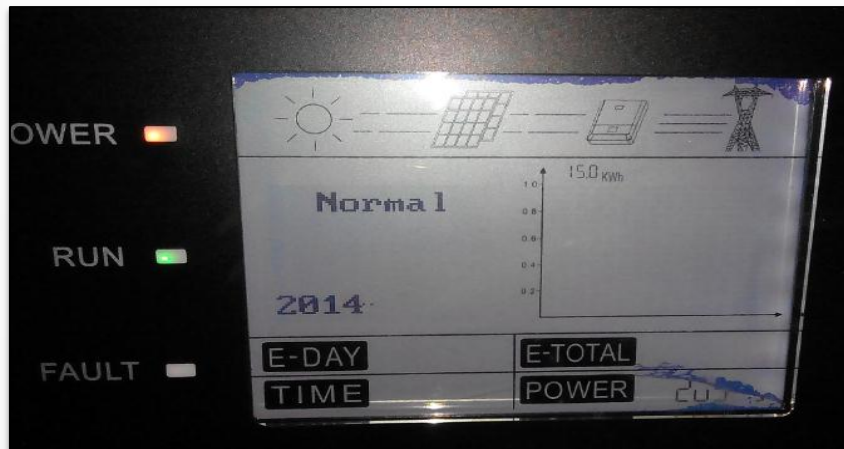
- 1: E-Day displayed in the inverter is too low
Check if the time setting in the inverter is correct;
- 2: E-Day in the portal is too low
 - 2.1 Check if the time setting in the inverter is correct;
 - 2.2 Check if the time zone in the portal is correct;
- 3: Generation is lower than other brand inverter
Please refer to the generation meter.

Display Fault

State: Fade display, information missing, mess display, LED always on, no backlight

Solution:

- 1: Contact with you installer or GoodWe local service center;
- 2: Replace the control board if it is a single phase inverter;
- 3: Replace the screen if it is a three phase inverter.



Button Fault

Cause: Internal button height problem, broken button, broken film

Solution:

Single phase inverter

1: Contact with GoodWe local service center to get approval to remove the cover and modify the height of internal button;

2: If the button or film is broken, please contact with GoodWe local service center for spare parts replacement;

Three phase inverter

Replace the film can fix the problem.

Technical Data

➤ DT

Model	GW15K-DT	GW17K-DT	GW20K-DT	GW25K-DT	GW30K-DT
DC input Data					
¹⁾ Max. allowed PV Power (W)	19500	22100	26000	32500	40300
Nominal. DC power (W)	15400	17500	20500	25800	31900
Max. DC voltage (V)	1000	1000	1000	1000	1000
MPPT voltage range (V)	260~850	260~850	260~850	260~850	260~850
Starting voltage (V)	250	250	250	250	250
Max. DC current (A)	22/22	22/22	22/22	27/27	27/27
Max. inverter backfeed current to the array (A)	0				
DC overcurrent protection(A)	33	33	33	38	38
No. of DC connectors	4	4	4	6	6
No. of MPPTs	2 (can parallel)				
DC overvoltage category	Category II				
DC connector	MC4 / Phoenix / Amphenol				
PV input operating voltage range	280V ~910Vdc				
Isc PV(absolute maximum)	27A/27A			32A/32A	

Model	GW15K-DT	GW17K-DT	GW20K-DT	GW25K-DT	GW30K-DT
AC Output Data					
Norminal AC power(W)	15000	17000	20000	25000	31000
Max. AC power(W)	15000	17000	20000	25000	25000
Max. AC current(A)	25	25	30	37	37.3
AC overcurrent protection(A)	54	54	60	72	72
Norminal AC output	50/60Hz; 400Vac				50/60Hz; 480Vac
AC output range	45~55Hz/55~65Hz; 310~480Vac				45~55Hz/55~65Hz; 422~528Vac
THDi	<1.5%				
Power factor	0.8 leading~0.8 lagging				
Grid connection	3W/N/PE				3W/PE
AC overvoltage category	Category III				
Current (inrush)	45A 75us				
Maximum output fault current	81.5A@27ms(L-L)/38.5A@5.7ms(L-N)				
Efficiency					
Max. efficiency	98.2%	98.2%	98.4%	98.4%	98.5%
Euro efficiency	>97.7%	>97.7%	>98.1%	>98.1%	>98.2%
MPPT adaptation efficiency	99.9%	99.9%	99.9%	99.9%	99.9%

Model	GW15K-DT	GW17K-DT	GW20K-DT	GW25K-DT	GW30K-DT
Residual current monitoring unit	Integrated				
Active anti-islanding protection	Active Frequency Disturbance and Reactive Power Disturbance				
DC switch	Integrated (optional)				
AC over current protection	Integrated				
Insulation monitoring	Integrated				
Certifications&Standards					
Grid regulation	VDE-AR-N 4105, G59/3, NRS097-2-1 AS4777.2&3, IEC62109-2 VDE0126-1-1, RD1699, EN50438 ERDF-NOI-RES_13E	G59/3, EN50438 AS4777.2&3 VDE0126-1-1 NRS097-2-1 IEC62109-2 MEA, PEA, RD1699 ERDF-NOI-RES_13E	VDE-AR-N 4105 VDE0126-1-1 G59/3	CQC NB/T 32004-2013	
Safety	IEC62109-1&-2, AS3100				
EMC	EN 61000-6-1,EN 61000-6-2,EN 61000-6-3,EN 61000-6-4, EN 61000-3-11, EN 61000-3-12				

Model	GW15K-DT	GW17K-DT	GW20K-DT	GW25K-DT	GW30K-DT
General Data					
Dimensions (WxHxD)	516*650*203mm				
Weight (kg)	39	39	39	40	40
Mounting	Wall bracket				
Ambient temperature range	-25~60°C (>45°C derating)				
Relative humidity	0~95%				
Moisture location category	4K4H				
Max. operating altitude	4000m				
Protection degree	IP65				
Environment category	Outdoor & indoor				
External environment pollution degree	Grade1、2、3				
Topology	Transformerless				
Night power consumption(W)	<1				
Cooling	Fan cooling				
Noise emission(dB)	<45				
Display	5.0" LCD				
Communication	RS485 or WiFi				
Standard warranty(years)	5/10/15/20/25 (optional)				

➤ SDT

Model	GW4000-DT	GW5000-DT	GW6000-DT	GW8000-DT	GW9000-DT	GW10KN-DT
DC input Data						
⁽¹⁾ Max. allowed PV Power (W)	5200	6500	7800	9600	10800	12000
Nominal. DC power (W)	4200	5200	6200	8300	9400	10500
Max. DC voltage (V)	1000	1000	1000	1000	1000	1000
MPPT voltage range (V)	200~800	200~800	200~800	200~850	200~850	200~850
Starting voltage (V)	180	180	180	180	180	180
Max. DC current (A)	11/11	11/11	11/11	11/11	11/11	11/11
Max. inverter backfeed current to the array (A)	0					
DC overcurrent protection(A)	21	21	21	21	21	21
No. of DC connectors	2	2	2	2	2	2
No. of MPPTs	2 (can parallel)					
DC overvoltage category	Category II					
DC connector	MC4 / Phoenix / Amphenol					

Model	GW4000-DT	GW5000-DT	GW6000-DT	GW8000-DT	GW9000-DT	GW10KN-DT
AC Output Data						
Norminal AC power(W)	4000	5000	6000	8000	9000	10000
Max. AC power(W)	4000	5000	6000	8000	9000	10000
Max. AC current(A)	7	8.5	10	12.1	13.6	15.2
AC overcurrent protection(A)	22	28	28	42	42	42
Norminal AC output	50/60Hz; 400Vac			50/60Hz; 400Vac		
AC output range	45~55Hz/55~65Hz; 310~480Vac			45~55Hz/55~65Hz; 310~480Vac		
THDi	<1.5%			<2%		
Power factor	0.8 leading~0.8 lagging			0.8 leading~0.8 lagging		
Grid connection	3W/N/PE			3W/N/PE		
AC overvoltage category	Category III			Category III		
Efficiency						
Max. efficiency	98%			98.3%		
Euro efficiency	>97.8%			>98.0%		
MPPT adaptation efficiency	99.9%			99.9%		
Protection						
Residual current monitoring unit	Integrated					
Active anti-islanding protection	Active Frequency Disturbance and Reactive Power Disturbance					
DC switch	Integrated(optional)					
AC over current protection	Integrated					
Insulation monitoring	Integrated					

Model	GW4000-DT GW5000-DT GW6000-DT GW8000-DT GW9000-DT GW10KN-DT
Certifications&Standards	
Grid regulation	VDE-AR-N 4105, AS4777.2&.3, IEC62109-2, VDE0126-1-1+A1, EN50438, G83/2
Safety	IEC62109-1&-2, AS3100
EMC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-3-2, EN 61000-3-3
General Data	
Dimensions (WxHxD)	516*474*192mm
Weight (kg)	24
Mounting	Wall bracket
Ambient temperature range	-25~60°C (>45°C derating)
Relative humidity	0~95%
Moisture location category	4K4H
Max. operating altitude	4000m
Protection degree	IP65
Environment category	Outdoor & indoor
External environment pollution degree	Grade1、2、3
Topology	Transformerless
Night power consumption(W)	<1
Cooling	Natural Convection
Noise emission(dB)	<30
Display	5.0" LCD
Communication	RS485 or WiFi
Standard warranty(years)	5/10/15/20/25 (optional)

➤ GW4000~6000L-DT

Model	GW4000L-DT	GW5000L-DT	GW6000L-DT
DC input Data			
^[1] Max. allowed PV Power (W)	5200	6500	7800
Nominal. DC power (W)	4200	5200	6200
Max. DC voltage (V)	600	600	600
MPPT voltage range (V)	200~550	200~550	200~550
Starting voltage (V)	180	180	180
Max. DC current (A)	11/11	11/11	11/11
Max. inverter backfeed current to the array (A)	0		
DC overcurrent protection(A)	21	21	21
No. of DC connectors	2	2	2
No. of MPPTs	2(can parallel)		
DC overvoltage category	Category II		
DC connector	MC4 / Phoenix / Amphenol		

Model	GW4000L-DT	GW5000L-DT	GW6000L-DT
AC Output Data			
Norminal AC power(W)	4000	5000	6000
Max. AC power(W)	4000	5000	6000
Max. AC current(A)	7	8.5	10
AC overcurrent protection(A)	22	28	28
Norminal AC output	50/60Hz; 400Vac		
AC output range	45~55Hz/55~65Hz; 310~480Vac		
THDi	<1.5%		
Power factor	0.8 leading~0.8 lagging		
Grid connection	3W/N/PE		
AC overvoltage category	Category III		
Efficiency			
Max. efficiency	96.8%		
Euro efficiency	>95.5%		
MPPT adaptation efficiency	99.9%		

Model	GW4000L-DT	GW5000L-DT	GW6000L-DT
Protection			
Residual current monitoring unit	Integrated		
Active anti-islanding protection	Active Frequency Disturbance and Reactive Power Disturbance		
DC switch	Integrated (optional)		
AC over current protection	Integrated		
Insulation monitoring	Integrated		
Certifications&Standards			
Grid regulation	AS4777.2&3, IEC62109-2		
Safety	IEC62109-1&-2, AS3100		
EMC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-3-2, EN 61000-3-		

Model	GW4000L-DT	GW5000L-DT	GW6000L-DT
General Data			
Dimensions (WxHxD)	516*474*192mm		
Weight (kg)	24		
Mounting	Wall bracket		
Relative humidity	0~95%		
Moisture location category	4K4H		
Max. operating altitude	4000m		
Protection degree	IP65		
Environment category	Outdoor & indoor		
External environment pollution degree	Grade1、2、3		
Topology	Transformerless		
Night power consumption(W)	<1		
Cooling	Natural Convection		
Noise emission(dB)	<30		
Display	5.0" LCD		
Communication	RS485 or WiFi		
Standard warranty(years)	5/10/15/20/25 (optional)		

➤ GW12KLV , GW15KLV-DT

Model	GW12KLV-DT	GW15KLV-DT
DC input Data		
⁽¹⁾ Max. allowed PV Power (W)	15600	19500
Nominal. DC power (W)	12300	15400
Max. DC voltage (V)	800	800
MPPT voltage range (V)	260~650	260~650
Starting voltage (V)	250	250
Max. DC current (A)	22/22	27/27
Max. inverter backfeed current to the array (A)	0	0
DC overcurrent protection(A)	33	38
No. of DC connectors	4	6
No. of MPPTs	2 (can parallel)	
DC overvoltage category	Category II	
DC connector	MC4 / Phoenix / Amphenol	
PV input operating voltage range	280V ~800Vdc	
Isc PV(absolute maximum)	27A / 27A	32A / 32A

Model		GW12KLV-DT	GW15KLV-DT
AC Output Data			
Norminal AC power(W)	208Vac System	113000	142000
	220Vac System	12000	15000
	240Vac System	13000	16000
Max. AC power(W)	208/220/240Vac System	13000	16000
Max. AC current(A)		31.5	39.5
AC overcurrent protection(A)		60	72
Norminal AC output		50/60Hz; 208/220/240Vac	
AC output range		45~55Hz/55~65Hz; 150~300Vac	
THDi		<3%	
Power factor		0.8 leading~0.8 lagging	
Grid connection		3W/N/PE	
AC overvoltage category		Category III	
Current (inrush)		45A 75us	
Maximum output fault current		81.5A@27ms(L-L)/38.5A@5.7ms(L-N)	
Maximum output overcurrent protuction		37.5	46.25

Model	GW12KLV-DT	GW15KLV-DT
Efficiency		
Max. efficiency	98.4%	
Euro efficiency	>98.1%	
MPPT adaptation efficiency	99.9%	
Protection		
Residual current monitoring unit	Integrated	
Active anti-islanding protection	Active Frequency Disturbance and Reactive Power Disturbance	
DC switch	Integrated (optional)	
AC over current protection	Integrated	
Insulation monitoring	Integrated	
Certifications&Standards		
Grid regulation	IEEE 1547	
Safety	IEC62109-1&-2	
EMC	EN 61000-6-1,EN 61000-6-2,EN 61000-6-3,EN 61000-6-4, EN 61000-3-11, EN 61000-3-12	

Model	GW12KLV-DT	GW15KLV-DT
General Data		
Dimensions (WxHxD)	516*650*203mm	
Weight (kg)	40	
Mounting	Wall bracket	
Ambient temperature range	-25~60°C (>45°C derating)	
Relative humidity	0~95%	
Moisture location category	4K4H	
Max. operating altitude	4000m	
Protection degree	IP65	
Environment category	Outdoor & indoor	
External environment pollution degree	Grade1、2、3	
Topology	Transformerless	
Night power consumption(W)	<1	
Cooling	Fan cooling	
Noise emission(dB)	<45	
Display	5.0" LCD	
Communication	RS485 or WiFi	
Standard warranty(years)	5/10/15/20/25 (optional)	

¹⁾Please make sure the voltage of PV string will not exceed the Max. DC voltage.

Certificates

Series	Model	VDE0126-1-1 (Europe)	VDE-AR-N 4105 (Germany)	EN62109-1&-2 (Europe)	SAA (Australia)	G83/2 (England)	G59/3 (England)
SDT	GW4000-DT	◆	◆	◆	◆	◆	
	GW5000-DT	◆	◆	◆	◆	◆	
	GW6000-DT	◆	◆	◆	◆	◆	
	GW4000L-DT			◆	◆	◆	
	GW5000L-DT			◆	◆	◆	
	GW6000L-DT			◆	◆	◆	
DT	GW09K-DT	◆					
	GW10K-DT	◆	◆	◆	◆		◆
	GW12K-DT	◆	◆	◆	◆		◆
	GW15K-DT	◆	◆	◆	◆		◆
	GW17K-DT	◆	◆	◆	◆		◆
	GW20K-DT	◆	◆	◆	◆		◆
	GW25K-DT	◆	◆	◆			◆
	GW30K-DT						

Series	Model	NB-T 32004 (China)	NRS 097-2-1 (S. Africa)	MEA+PEA (Thailand)	ERDF-NOI-RES_13E (France)	IEC61727 IEC62116 IEC60068 IEC61683 (India)
SDT	GW4000-DT	◆			◆	
	GW5000-DT	◆			◆	
	GW6000-DT	◆			◆	
	GW4000L-DT				◆	
	GW5000L-DT				◆	
	GW6000L-DT				◆	
DT	GW09K-DT				◆	
	GW10K-DT	◆	◆	◆	◆	◆
	GW12K-DT	◆	◆		◆	◆
	GW15K-DT	◆	◆		◆	◆
	GW17K-DT	◆	◆		◆	◆
	GW20K-DT	◆	◆	◆	◆	◆
	GW25K-DT	◆				◆
	GW30K-DT	◆				

Note: ◆ Approved

Warranty and Service

STANDARD WARRANTY (exclude China domestic market)

GOODWE NS SS DS DT ES series inverters come standard with a manufacturer's warranty of 66 months (5.5 years) from the date of production from JIANGSU GOODWE POWER SUPPLY TECHNOLOGY Co., Ltd (hereinafter referred to as GOODWE).

The accessory products include Antenna, EzConverter, EzMeter and EzLogger come standard with a manufacturer's warranty of 30 months (2.5 years) from the date of manufacture from GOODWE.

For inverters (GOODWE NS SS DS DT ES series), and the accessory products, the warranty can be extended within 24months (2 years) term of the GOODWE warranty from the date of manufacturing. Please obtain the warranty extension price list form GOODWE Sales for further information.

WARRANTY CONDITIONS

If the inverter malfunctions or becomes inoperative due to a defect in workmanship or material under normal operation as specified in product instruction within warranty period, please report defective inverters with a brief error description to service hotline for logging and send your warranty card to our service department by fax/email to process the warranty claim. If you are a private end-user, please contact your installer, or any GOODWE authorized Dealer or Distributor.

You will need to provide us with the following information or documentation regarding defective inverter to help us to proceed your claim under warranty terms of GOODWE:

Product Model No. and serial number

Error message on LCD screen (if available) and additional information regarding the fault/error.

If the inverter malfunctions or becomes inoperative due to a defect in workmanship or material under normal operation as specified in product instruction within warranty period, please report defective inverters with a brief error description to service hotline for logging and send your warranty card to our service department by fax/email to process the warranty claim. If you are a private end-user, please contact your installer, or any GOODWE authorized Dealer or Distributor.

You will need to provide us with the following information or documentation regarding defective inverter to help us to proceed your claim under warranty terms of GOODWE:

- ☐ Product Model No. and serial number
- ☐ Error message on LCD screen (if available) and additional information regarding the fault/error.
- ☐ Detailed information regarding the entire system (modules, circuits, etc.)
- ☐ Detailed information of previous claims (if applicable).

While an inverter fails under GOODWE standard warranty period, it will be

- A. returned to GOODWE and repaired;
- B. Onsite repaired;
- C. Replaced with a refurbished inverter that includes the latest firmware (if original model has been stopped in production, GOODWE will provide an equivalent value replacement).

If the inverter is replaced within the warranty period, the remaining warranty period will be automatically transferred to the replacement unit. In this event, you will not receive a new certificate, as this replacement will be registered by GOODWE. In any event, we provide a full one-year warranty on all replacement devices regardless of whether the original warranty is still valid.

Warranty card and purchase invoices should be properly kept for further warranty claim. For return transportation of inverters or components, it must be packed in their original or equivalent packaging. GOODWE keeps the right to arrange the warranty service by using third parties for performing warranty works.

GOODWE standard warranty includes the cost to GOODWE for work and material to regain inverter functioning. All other cost that includes transportation, travelling and accommodation cost of GOODWE personnel as well as costs of your own staff is not covered in the standard warranty. Furthermore, claims for compensation for direct or indirect damages arising from the defective inverter are not covered by standard warranty.

Warranty Exception

The following circumstances may cause inverters be defective, it will not be covered by GOODWE's standard warranty:

- ❑ Product warranty period is expired (excluding additional agreements of warranty extension).
- ❑ Faults or damages due to operations against GOODWE instructions, installation and maintenance requirement. Such as mounting distance, air, waterproof plug.
- ❑ Disassembly, repair or modification by non GoodWe authorized person.
- ❑ Faults or damages due to unpredictability factors, man-made factors, or force majeure. Such as stormy weather, flood, lightning, overvoltage, pests and fire etc.

- ❑ Product modified, design changed or parts replaced not approved by GOODWE.
- ❑ Vandalism, engraving, labels, irreversible marking or contamination or theft.
- ❑ Normal wear and tear.
- ❑ Failure to comply with the safety regulations (VDE standards, etc.).
- ❑ Faults or damages caused by other reasons not related to product quality problem.
- ❑ The defect is caused during transportation.
- ❑ The rust appeared on inverter's enclosure caused by harsh environment.

SERVICE AFTER WARRANTY EXPIRATION

For products which are out of warranty, GOODWE charges an on-site service fee, parts, labor cost and logistic fee to end-user which can be any/all of:

- >On-site attendance fee: Cost of travel and time for the technician in attending on-site.
- >Parts: Cost of replacement parts (including any shipping/admin fee that may apply).
- >Labor: Labor time fee charged for the technician, who is repairing, maintaining, installing (hardware or software) and debugging the faulty product.
- >Logistic fee: Cost of delivery and other derived expense when defective products are sent from user to GOODWE or/and repaired products are sent from GOODWE to user.

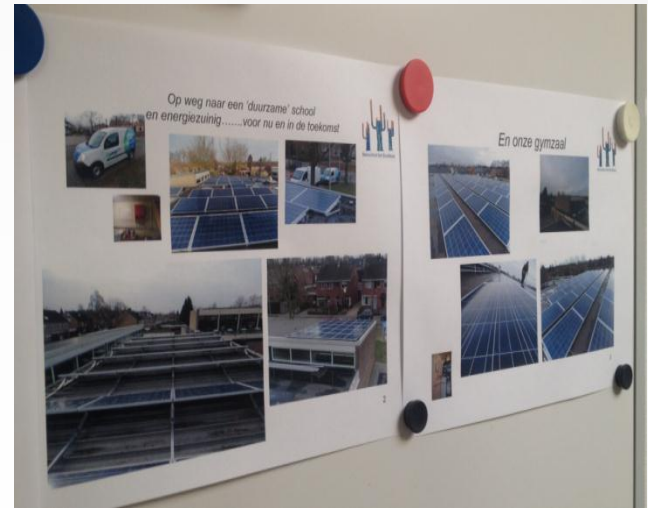
Residential & Commercial Projects



35kW, 2XGW17K-DT , Jiangsu, China



200kW , 10XGW10K-DT+4XGW15K-DT+2XGW17K-DT , Denmark



(40kW~200kW) X40 schools , Education Sector projects in the Netherlands



20kW, 2XGW10K-DT , South Africa



20kW, 1XGW20K-DT , Germany

THE END
THANK YOU !