

# Modbus Server for Energy meter Quick Guide

## 1. Package Contents

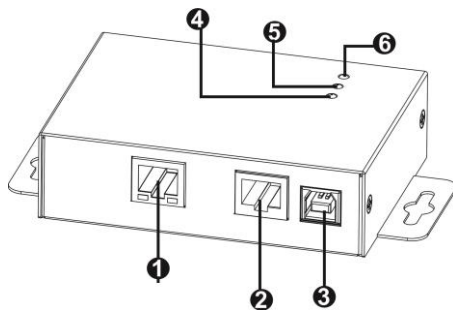
You should have received the following items inside of package:

- Modbus server
- Quick Guide
- USB Communication cable

## 2. Product Introduction

Modbus server is used in conjunction with three pieces of hybrid inverters and energy meter. Each inverter is equipped with Modbus card. It's to control power generation and battery charging of three inverters and communicate inverters and energy meter via Modbus server.

## 3. Product Overview



- ① Ethernet port (10/100Base-T)
- ② RS-485 port
- ③ 5Vdc DC input
- ④ Data receiving indicator
- ⑤ Data transmission indicator
- ⑥ Power indicator

## 4. Installation and Connection

### Pre-installation

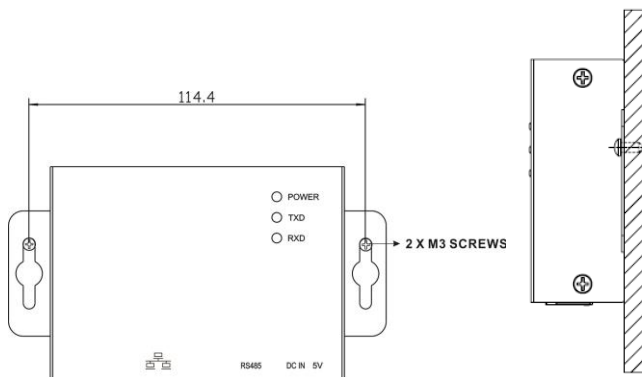
Before making connection to Modbus server device, make sure the inverter is already installed with Modbus card.

### Wall-mounting

**Step 1:** Use a vertical line and the length of the line must be 114.4 mm. Mark the two ends on the wall.

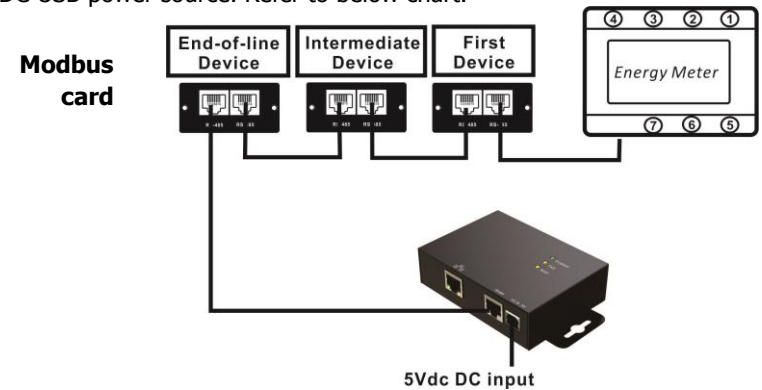
**Step 2:** Drill two marks by screws.

**Step 3:** Mount the unit by positioning the key-hole slots over the mounting screws.

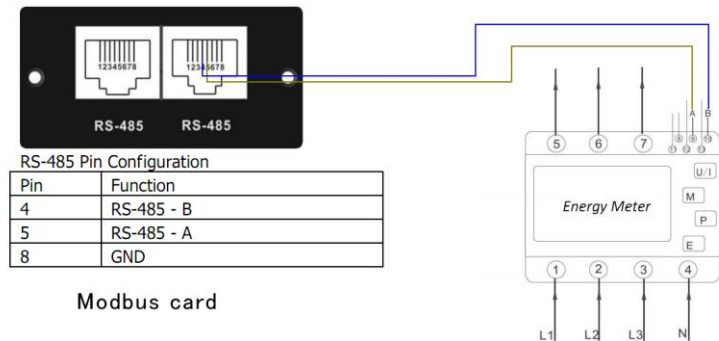


## Connection

Use one Ethernet cable to connect to Ethernet port (①) of the server. Use one RJ45 cable to connect to RS-485 port (②) of the server and Modbus card of inverter. Then, use bundled USB cable to connect to USB port (③) of the server and 5V DC USB power source. Refer to below chart.



For wiring connection of first device and energy meter, please refer to below chart.



## 4. Modbus Web Server

Modbus server is embedded software called "Modbus Web Server". Simply open IE browser and enter IP address of Modbus server. Default IP address is 192.168.102.230. Click "Status" to display information of Modbus server.

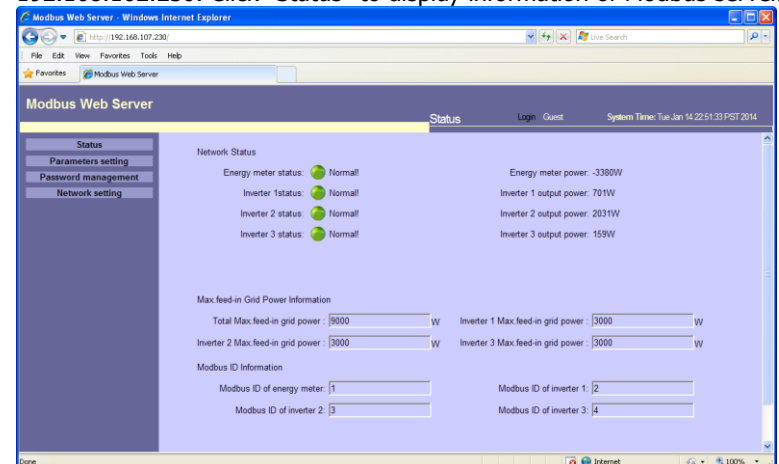


Chart 1

# Modbus Server for Energy meter Quick Guide

## 4-1. Password

It's requested to enter password for modifying setting in Modbus Web server. The length of password is 8~15 digits. Default password is "12345678".

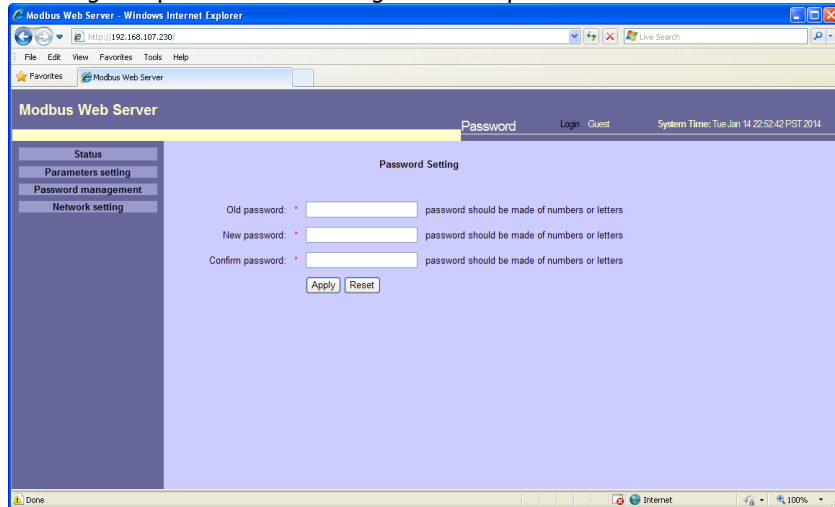


Chart 2

## 4-2. Network Setting

There are two methods to obtain IP address.

- Automatically obtain IP address (DHCP)
- Manually configure IP address (default)

The system will default manually configure IP addresses. The default IP is displayed as "192.168.102.230", Net mask as "255.255.255.0" and default gateway is "0.0.0.0".

**Note:** This modification will cause Modbus Web Server and Modbus server to reboot.

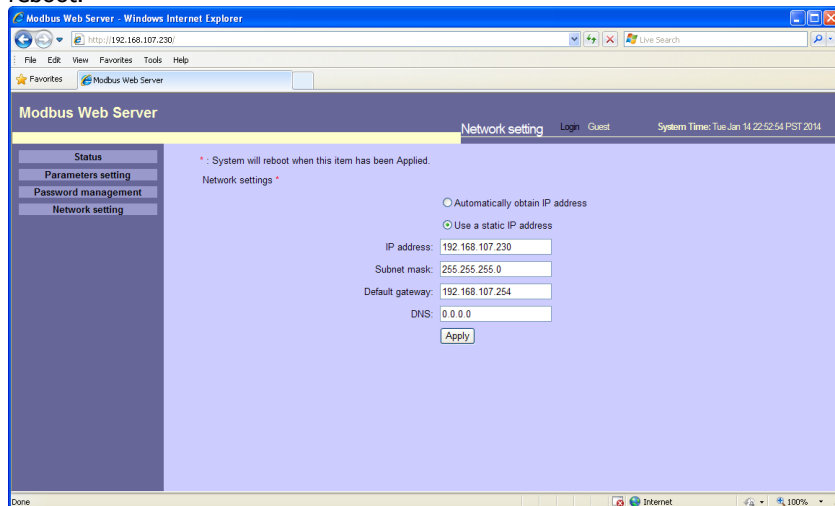


Chart 3

## 4-3. Parameter Setting

Select mode setting and set up Max. feed-in grid power and modbus ID.

There are two mode settings:

- Reset total feed-in power to zero
- Reset feed-in power to zero in each phase

**Note:** Make sure that all modbus IDs are different in the modbus network.

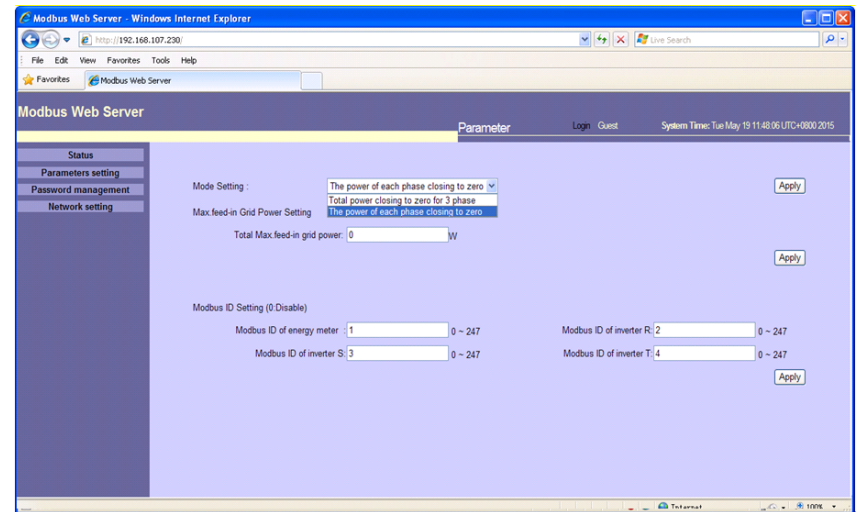
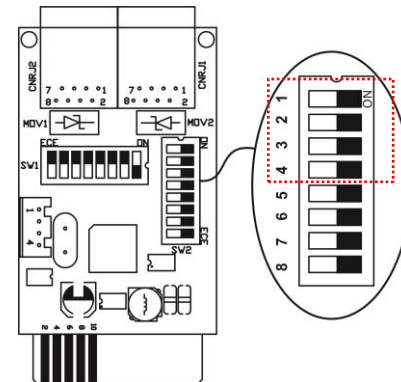


Chart 4

## 4-4. Modbus Card Setting (Refer to Connection Diagram)

It's necessary to set up Modbus card as server mode while integrated Modbus server in applications. Please refer detailed setting in section 6 in Modbus card II user manual.



Function	Bit Setting		Meaning
Working mode	# 2	# 1	Working in server mode
	OFF	OFF	