SNMP Web Management



User's Manual For SNMP Web Card/Box

Management Software for Off-Grid Inverter

Version: 1.2

Table of Contents

| 1. | Overview | 1 |
|----|--------------------------|----|
| | 1.1 Introduction | 1 |
| | 1.2 Features | 1 |
| | 1.3 Overlook | 1 |
| | 1.4 Connection | 2 |
| | 1.5 Configuration | 3 |
| | 1.6 Monitoring | 3 |
| 2. | SNMP Web GUI | 5 |
| 3. | Function Menu | 6 |
| | 3.1 Information | 6 |
| | 3.2 Setting | 6 |
| | 3.3 Parallel | 10 |
| | 3.4 System configuration | 10 |
| | 3.5 Log | 13 |
| | 3.6 Help | 15 |
| | • | |

1. Overview

1.1 Introduction

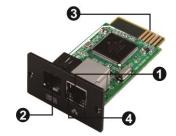
This SNMP web card/box can provide web server to monitor and manage off-grid inverters in a networked environment including LAN and INTERNET. It can retrieve the device working status, working data and setting. It also can receive data of temperature and humidity for the environment via connecting to EMD (Environmental Monitoring Device).

Integrated with WatchPower software, it can monitor and remote access all distributed off-grid inverters via SNMP interface. For the detailed operations, please check user manual of WatchPower.

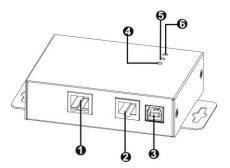
1.2 Features

- > Open monitor via Web Browser.
- Automatically detect and exchange data through 10M/100M Fast Ethernet.
- Support wake-on-LAN function.
- Supported protocol such as TCP/IP, UDP, SNMP, SMTP, SNTP, HTTP and so on.
- > Support to record and export event log, including warnings and faults.
- > Support daily reports for event log and data log.
- > Support parallel-inverter monitoring.

1.3 Overlook



Ethernet port (10/100Base-T)
Sensor port
Golden finger: connects to device slot
Ethernet port status LEDs



Ethernet port(10/100Base-T)
RS-232 port
5Vdc DC input
Data receiving indicator
Data transmission indicator
Power indicator

Ethernet port status LEDs:

| 100M LED (Green) | Flash | Port is operating at 100Mbit/s | | |
|------------------|-------|--------------------------------------|--|--|
| | Off | Card is not connected to the network | | |
| 10M LED (Yellow) | Flash | Port is operating at 10Mbit/s | | |
| | Off | Card is not connected to the network | | |

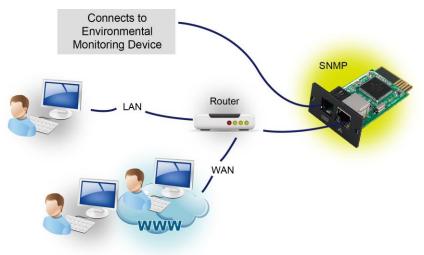
1.4 Connection

Refer to chart 1-1 for connecting the SNMP card and chart1-2 for connecting SNMP box. **If using SNMP card:**

Plug Ethernet cable to the Ethernet port (RJ-45) on the SNMP card. Use one more Ethernet cable. Connect one end to the sensor port on the SNMP card and the other end to the optional environmental monitoring device.

If using SNMP box:

Use one Ethernet cable to connect to Ethernet port (①) of the box. Use one RJ45 cable to connect to RS-232 port (②) of the box and RS-232 port of the inverter. Then, use bundled USB cable to connect to USB port (③) of the box and 5V DC USB power source.





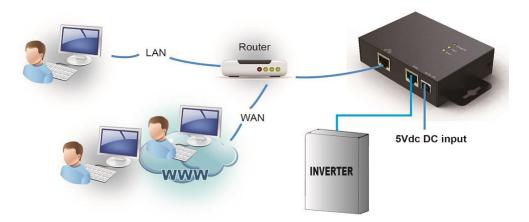


Chart 1-2

1.5 Configuration

a) Please install SNMP web manager software in your PC. After software is installed successfully, the Installer will leave a shortcut icon on your desktop.



b) Enter specific IP address to search all SNMP devices in LAN. (The SNMP web manager will automatically collect the IP address from sever by default via a DHCP server. It will apply default IP address of 192.168.102.230, default subnet mask as 255.255.255.0, and default gateway as 0.0.0.0 without a DHCP server.

| IP address | MAC address | Basic Info IP settings Online upgrade System manager Static trap address SMS |
|--------------------|--------------------------|---|
| .168.107.129 | 60-19-29-00-A2-9F | |
| | | IP address 192.168.107.129 |
| | | MAC address 60-19-29-00-A2-9F |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| SNMP status: 1 | SNMP reset enable Reset | |
| | | |
| Ose system time: u | 3/10/2015 10:47:03 Apply | |
| 192.168.107 | Scan | Output window |
| | | [10:46:48] 192.168.107.129 Online successfully. |
| | Add | 2. Doubling and the state in the state of the state of the state stat |
| | Del | |
| | | |
| | | |
| | | |
| | | |

Chart 1-4

c) User can modify IP setting, online upgrade, password management, and static trap address setting in SNMP Web Manager screen. It is necessary to enter password for any modifications. The default password is 12345678.

Please check SNMP Web Manager User Manual for detailed configuration.

1.6 Monitoring

There are two ways to monitor:

- a) Double click the selected device from the device list (refer to Chart 1-5) to open web page as Chart 1-4.
 - b) to open web page as chart 1-4

| SNMP Web for Off-Grid Inverter 1.0 | | | Status | Logout Administrator |
|---------------------------------------|----------------------------|-----------|--------------------------|----------------------|
| | | | | |
| Information | | | | |
| | Work Status | | | |
| Status Basic information | Battery status: | Charging | SCC status: | Charging |
| | AC charging status: | Charging | Load status: | Connected |
| Setting | AC input status: | Connected | | |
| Parameters setting | | | | |
| Parallel | Work Data | | | |
| 55355535553555 | AC input voltage: | 000 6 1/ | | 000.01/ |
| System configuration | | | AC output voltage: | |
| Web | AC input frequency: | | AC output frequency: | |
| E-mail | PV input voltage: | | AC ouput apparent power: | |
| System time | Battery voltage: | 51.80 V | AC output active power: | 2075 W |
| SNMP configuration | Battery capacity: | 95 % | Output load percent: | 51 % |
| Log | Battery discharge current: | 0 A 0 | PV charging power: | 155 W |
| Event log Data log | Battery charge current: | 10 A | Working mode: | Line mode |
| | | | | |
| Help | | | | |
| Serial Port Debug | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Chart 1-5

b) Installed WatchPower software to monitor SNMP devices. Refer to Chart 1-5. Please check WatchPower User Manual for detailed monitoring.



Chart 1-6

2. SNMP Web GUI

SNMP web GUI includes function menu, login section and main screen. Refer to Chart 2-1:

| | SMMP Web Server - Windows Inte | ernet Explorer | | |
|--|--------------------------------|--------------------------------|----------------------------------|-------------|
| Wate ● SIMP Web for Off-Grid Inverter 1.0 A Status D Basic information Battery status: Charging Status Battery status: Charging Basic information AC charging status: Charging Parameters setting AC input status: Connected Parameters setting AC input status: Connected Vork Data Work Data Web E-mail Stystem configuration Work Data Web E-mail SNMP Configuration Battery status: file 0 SNMP Configuration Battery status: Connected Web E-mail System time SNM Configuration SNMP Configuration Battery status: file 0 Up Dy Int voltage: file 0 V System time SNM Configuration Battery charge current: 0 A Battery status: 51 % U Output load percent: 51 % Battery charge current: 10 A Working mode. Line mode | 🗩 💽 🔻 🙋 http://192.168.107.1/ | | 💌 🗟 🐓 🗙 📴 Bing | P |
| SMPL Yeb Server Image: Some of the server SNMP Web for Off-Grid Inverter 1.0 A Information Basic information Setting Battery status: Charging AC charging status: Charging AC charging status: Charging AC charging status: Connected Parameters setting Parameters setting Parallel 533555555555 System configuration Web E-mail System time SMP configuration Battery charge: 51.8 V AC output voltage: 29.6 V Web E-mail System time SMP configuration Battery charge: 51.8 V AC output voltage: 29.6 V Battery tatus: former: 0 A Durput total Battery charge current: 10 A | (件 (E) 编辑 (E) 查看 (Y) 收藏夹 (A) ; | E具 ① 帮助 创 | | |
| SMPL Yeb Server Image: Some of the server SNMP Web for Off-Grid Inverter 1.0 A Information Basic information Setting Battery status: Charging AC charging status: Charging AC charging status: Charging AC charging status: Connected Parameters setting Parameters setting Parallel 533555555555 System configuration Web E-mail System time SMP configuration Battery charge: 51.8 V AC output voltage: 29.6 V Web E-mail System time SMP configuration Battery charge: 51.8 V AC output voltage: 29.6 V Battery tatus: former: 0 A Durput total Battery charge current: 10 A | 收藏夹 👍 | | | |
| Off-Grid Inverter 1.0 A D Logot Administrator Information B Status Basic information Setting Parallel 53355535555 System configuration Web E-mail SMP configuration Web E-mail SMP configuration SMP configuration Battery charge 51.8 V AC output voltage: 229.6 V AC output voltage: 229.6 V Vork Data Vork Data Vork Data Vork Data System time SMP configuration Battery claracity; 95 % Output load precenc; 91.9 9 Hz AC output voltage: 275 V Log Battery claracity; 95 % Output load precenc; 51 % Battery claracity; 95 % Log Battery claracity; 95 % Output load precenc; 51 % Battery claracity; 95 % Output load precenc; 51 % Battery claracity; 95 % Battery claracity; 95 % Output load precenc; 51 % Battery claracity; 95 % Battery claracity; 95 % Output load precenc; 51 % Battery claracity; 95 % | | | 🏠 🔹 🗟 👘 🖃 🍓 🔹 页面 🕑 🚽 安全(| 5)・工具(0)・ 🧃 |
| B Status Basic information Setting Parameters setting AC charging status: Charging Parameters setting AC input status: Connected System configuration Work Data Web E-mail System time S18 V SMMP configuration AC input voltage: 51.8 V Number of Battery voltage: 51.8 V AC output depreent: 51 % Battery discharge current: 10 A PV charging power: 155 W Battery discharge current: 10 A Working mode: Line mode | | А | Status D Logout Adminis | trator |
| Status Battery status: Charging SCC status: Charging Basic information AC charging status: Charging SCC status: Charging Parameters setting AC input status: Connected Parameters setting AC input status: Connected System configuration Work Data Web E-mail System time S1.8 V SNMP configuration AC input voltage: 51.8 V Log Battery charge current: 10 A Battery charge current: 10 A Working mode: Line mode | | Work Status | | |
| Sotting AC charging status: Charging Load status: Connected Parameters setting AC input status: Connected AC input status: Connected Parallel Sotting AC input status: Connected 5335653655 AC input voltage: 229.6 V AC output voltage: 229.6 V Work Data AC input voltage: 29.9 Hz AC output frequency: 49.9 Hz System time PV input voltage: 51.8 V AC output apparent power: 2075 VA SNMP configuration Battery charge current: 0 AC output doal power: 155 W Event log Data log Battery charge current: 10 A Help Working mode. Line mode | Status | Battery status: Charging | SCC status: Charging | |
| Parameters setting AC input status: Connected Parallel 5535555555555 System configuration Web E-mail System configuration SNMP configuration Log Battery clarge current: 0 Battery discage current: 0 Battery charge current: 10 AC input status: Configuration AC input voltage: 229.6 V AC output frequency: 49.9 Hz AC output apparent power: 2075 VA Battery clarge current: 0 Battery clarge current: 0 Help | | AC charging status: Charging | Load status: Connected | |
| Parallel Work Data 5535555555 AC input voltage: 229.6 V AC output voltage: 229.6 V Web AC input voltage: 249.9 Hz AC output frequency: 49.9 Hz Web PV input voltage: 51.8 V AC output apparent power: 2075 VA SNMP configuration Battery classic: 51.8 V AC output apparent power: 2075 VA Battery classic: 51.8 V AC output apparent power: 2075 W Battery classic: 51.8 V AC output apparent power: 2075 W Battery classic: 51.8 V AC output apparent power: 2075 W Battery classic: 51.8 V AC output apparent power: 2075 W Battery classic: 51.8 V AC output load percent: 51 % Battery classic: 0 A PV charging power: 15 % Battery charge current: 10 A Working mode: Line mode | | AC input status: Connected | | |
| S5355555555 Work Data System configuration AC input voltage: 229.6 V Web AC input voltage: 229.6 V E-mail PV input voltage: 51.8 V System time S1 NIP configuration SNMP configuration Battery voltage: 51.8 V Log Battery voltage: 51.8 0 V Event log Battery capacity: 95 % Output load percent: 0 A Battery charge current: 0 A Help Battery charge current: 10 | • | | | |
| System configuration AC input voltage: 229.6 V AC output voltage: 229.6 V Web AC input voltage: 229.6 V AC output voltage: 229.6 V BE-mail PV input voltage: 51.8 V AC output frequency: 49.9 Hz System time Battery voltage: 51.8 V AC output apparent power: 2075 VA SNMP configuration Battery voltage: 51.8 V AC output active power: 2075 W Log Battery claracity: 95 % Output load percent: 51 % Event log Battery charge current: 0 A PV charging power: 155 W Help Battery charge current: 10 A Working mode: Line mode | | Work Data | | |
| Web AC input frequency: 49.9 Hz AC output frequency: 49.9 Hz E-mail PV input voltage: \$1.8 V AC output frequency: 49.9 Hz System time PV input voltage: \$1.8 V AC output apparent power: System time Battery voltage: \$1.8 V AC output apparent power: Battery voltage: \$1.8 V AC output apparent power: 2075 VA SNMP configuration Battery capacity: 95 % Output load percent: 51 % Log Battery cischarge current: 0 A PV charging power: 155 W Event log Battery charge current: 10 A Working mode: Line mode | | AC input voltage: 229.6 V | AC output voltage: 229.6 V | |
| E-mail PV input voltage: 51.8 V AC output apparent power: 2075 VA System time Battery voltage: 51.80 V AC output apparent power: 2075 VA SNMP configuration Battery configuration Output load percent: 51 % Log Battery discharge current: 0 A PV charging power: 155 W Event log Battery charge current: 10 A PV charging mode: Line mode | | AC input frequency: 49.9 Hz | AC output frequency: 49.9 Hz | |
| SNMP configuration Battery capacity: 95 % Output load percent: 51 % Log Battery discharge current: 0 A PV charging power: 155 W Event log Battery charge current: 10 A Working mode: Line mode Help Battery charge current: 10 A Working mode: Line mode | | PV input voltage: 51.8 V | AC ouput apparent power: 2075 VA | |
| Log Datery departy. Dr A Origin to generation Event log Battery departy. Dr A PV charging power. 155 W Data log Battery charge current: 10 A PV charging power. 155 W Help Battery departy. Dr A Working mode: Line mode | | Battery voltage: 51.80 V | AC output active power: 2075 W | |
| Event log Data log Battery discharge current: A P V charging power, 15 v V Help Battery charge current: 10 A Working mode: Line mode | | Battery capacity: 95 % | | |
| Data log Data log Overlage current. To A Overlage current and a curr | | Battery discharge current: 0 A | PV charging power: 155 W | |
| Help | | Battery charge current: 10 A | Working mode: Line mode | |
| | | | | |

Chart 2-1

- A .SNMP web GUI version
- B .Function Menu

It offers complete tool-set for navigation and setting the GUI.

C .Main Screen

It will display information and/or control alternatives according to function menu selected.

D. Login section

It shows user type for current login user. The default password for administrator is "12345678".

3. Function Menu

3.1 Information

3.1.1. Status

Select Information >> Status. Refer to Chart 3-1. It's shown real-time monitored off-grid inverter data including working status and data. Working data includes input information, output information, device mode and battery information in table format.

| | | | Status | 3 | Administrator |
|-----------------------|----------------------------|-----------|--------------------------|-----------|---------------|
| Information | Work Status | | | | |
| Status | Battery status: | Charging | SCC status: | Charging | |
| Basic information | AC charging status: | | Load status: | | |
| Setting | AC input status: | Connected | | | |
| Parameters setting | | | | | |
| Parallel | Work Data | | | | |
| 55355535553555 | AC input voltage: | 229.6 V | AC output voltage: | 229.6 V | |
| system configuration | AC input frequency: | | AC output frequency: | | |
| Web E-mail | PV input voltage: | 51.8 V | AC ouput apparent power: | 2075 VA | |
| System time | Battery voltage: | 51.80 V | AC output active power: | 2075 W | |
| SNMP configuration | Battery capacity: | 95 % | Output load percent: | 51 % | |
| Log | Battery discharge current: | 0 A 0 | PV charging power: | 155 W | |
| Event log Data log | Battery charge current: | 10 A | Working mode: | Line mode | |
| Help | | | | | |
| Serial Port Debug | | | | | |
| Senar Port Debug | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Chart 3-1

3.1.2. Basic information

Select Information >> Basic information. It includes product information and rated information. Refer to Chart 3-2.

| SNMP Web for | | | | |
|-----------------------------------|----------------------------|-----------------|-----------------------------------|----------------------|
| Off-Grid Inverter 1.0 | | | Basic information | Logout Administrator |
| | | | | |
| Information | Product information | | | |
| Status Basic information | Model type: | Stand alone | Main CPU version: | 00012.30 |
| Setting | Topology: | transformerless | Secondary CPU version: | 00006.06 |
| Parameters setting | | | | |
| Parallel | Rated information | | | |
| 55355535553555 | Nominal AC input voltage: | 230.0 V | Nominal AC output frequency: | 50.0 Hz |
| System configuration | Nominal AC input current: | 21.7 A | Nominal AC output current: | 21.7 A |
| Web | Rated battery voltage: | 48.0 V | Nominal AC output apparent power: | 0.0 VA |
| E-mail | Nominal AC output voltage: | 230.0 V | Nominal AC output active power: | 4000 W |
| System time SNMP configuration | | | | |
| Log | | | | |
| Event log | | | | |
| Data log | | | | |
| Help | | | | |
| Serial Port Debug | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Chart 3-2

3.2 Setting

3.2.1 Parameters setting

Some functions can be set and changed via software. Parameter setting includes voltage and frequency setting, status setting and restore to the default setting.

Select Setting >> Parameters setting. Refer to Chart 3-3.

| Information Status Basic information Setting Parameters setting Parameters setting Parameters setting Sistississississis Sistississississis Sistississississis System configuration Veb E-mail System time Sinding Battery cut-off voltage: 420 Veb E-mail System time Sinding Battery cut-off voltage: Battery cut-off voltage: Log E-mail Serial Port Debug Output mode: Phage R of 3phase output v Apply Battery cut-off voltage: Serial Port Debug Max AC charging current; 10 Apply Charger source priority: Utility and Solar Apply Battery cut-off voltage: Apply Battery cut-off voltage: Doutput mode: Phage soutput v Apply | SNMP Web for Off-Grid Inverter 1.0 | | Parameters setting Logout Admin | istrator |
|---|--|--|--|----------|
| | Status Basic information Setting Parameters setting Parameters setting 55356535653555 5535535553555355 5535533553 | Power saving mode: Enable Disable Apply Backlight: © Enable Disable Apply Overload auto restart: © Enable Obisable Apply Over temperature auto restart: © Enable © Disable Apply Output source priority: Utility ♥ Apply AC input range Appliance ♥ Apply Battery type User ♥ Apply Battery cut-off voltage 42.0 V Apply Parallel setting: Output mode Phase R of Sphase output ♥ Apply | Beeps while primary source interrupt: ⊙ Enable ○ Disable Apply Overload bypass: ○ Enable ⊙ Disable Apply LCD returns to default display after 1 min: ⊙ Enable ○ Disable Apply Solar power balance: ⊙ Enable ○ Disable Apply Output frequency: 50 ♥ Hz Apply Battery re-charge voltage 46.0 ↓ (Apply) Battery re-charge voltage 56.5 ↓ (Apply) Bulk charging voltage 56.5 ↓ (Apply) Floating charging voltage 54.0 ↓ (Apply) Max AC charging current: 10 A (Apply) Max charging current: 10 A (Apply) | |

Chart 3-3

Note: Different inverter model may access different parameter setting.

- 1. Select the functions by clicking "Enable" or "Disable" button. Change the numbers by clicking up-down arrows or modify the numbers directly in the number column.
- 2. Click "Apply" button to save the settings. Each function setting is saved by clicking "Apply" button in each section.
- 3. Click "Restore to the defaults" button to set control parameter to default value.
- 4. Before setting value in Battery cut-off voltage, Bulk charging voltage and Floating charging voltage columns, it's necessary to set Battery type as "user".
- 5. Please check parallel setting for detailed set up.

Note: Any functions which are not supported by current inverter will not be able to access.

- > Buzzer alarm: If enabled, buzzer will be activated. Vice versa.
- Power saving mode: If enabled, power saving mode will be activated. Vice versa.
- > Backlight: If enabled, LCD backlight will be activated. Vice versa.
- Overload auto restart: If disabled, the inverter will automatically restart when overload occurs. Vice versa.
- Over temperature auto restart: If enabled, the inverter will automatically restart when over temperature occurs. Vice versa.
- Beeps while primary source interrupt: If enabled, alarm will sound when primary source is interrupted. Vice versa.
- Overload bypass: If enabled, the inverter will bypass AC input when overload occurs. Vice versa.
- LCD returns to default display after 1 min: If enabled, the LCD will automatically return to default page when any button is not pressed for 1 minute. Vice versa.
- Solar power balance: When enabled, PV input power will be automatically adjusted according to connected load power. If disabled,

PV input power will be the same to max. battery charging power no matter how much loads are connected.

- Output source priority: There are 3 options: utility first, solar first and SBU. If "SBU" is selected, solar power will supply power to the load first. When solar power is not sufficient, battery power will supply the load. When battery power is running out, utility will be the power source for the load.
- AC input range: There are two options: appliance and UPS. Please select proper device you want to connect to the inverter. Please check the acceptable AC input range in inverter spec.
- Output frequency: Nominal output frequency, 50Hz and 60Hz selectable.
- Battery re-charge voltage: Click up-down arrow to set up battery re-charge voltage point. If "SBU" is selected in output source priority, the inverter will transfer output source to utility when battery voltage drop to battery re-charge voltage point.
- Battery re-discharge voltage: When battery voltage is higher than this setting voltage, battery will be allowed to discharge.
- Battery type: Please select battery type. There are three options: AGM, Flooded and User(user-defined). If "User" is selected, you can set the following voltages.
 - ♦ Battery cut-off voltage: Setting range is $40.0 \text{ V} \sim 48.0 \text{ V}$.
 - ♦ Bulk charging voltage: Setting range is 48.0 V~ 58.4 V.
 - ♦ Floating charging voltage: Setting range is 48.0 V~58.4 V.

Parallel Setting: If there are more than 2 inverter operated in parallel, please configure these 4 parameters in each inverter: output mode, charger source priority, max. AC charging current and max. charging current. Refer to chart 3-3. Please follow below steps for the details.

Step 1: Click "Parallel \rightarrow Machine ID" in function menu to access parallel setting for each unit. Refer to Chart 3-4.

| SNMP Web for Off-Grid Inverter 1.0 | | Parameters setting Logout Administrator |
|---|---|--|
| Information Status Basic information Setting Parameters setting Parallel 55355535553555 55355535555555555555 | Buzzer alarm: ⊙ Enable ○ Disable Apply Power saving mode: ○ Enable ○ Disable Apply Backlight: ⊙ Enable ○ Disable Apply Overload auto restart: ○ Enable ○ Disable Apply Over temperature auto restart: ○ Enable ⊙ Disable Apply Output source priority: Utility ♀ Apply | Beeps while primary source interrupt: ⊙ Enable ○ Disable Apply Overload bypass: ○ Enable ⊙ Disable Apply LCD returns to default display after 1 min: ⊙ Enable ○ Disable Apply Solar power balance: ⊙ Enable ○ Disable Apply Output frequency 60 ♥ H₂ (Apply) |
| System configuration Web E-mail System time SNMP configuration Log Event log Data log | AC input range Appliance Apply Battery type User Apply Battery cut-off voltage 42.0 V Apply | Battery re-charge voltage 46.0 v Apply Battery re-discharge voltage 54.0 v Apply Bulk charging voltage 56.5 v Apply Floating charging voltage 54.0 v Apply |
| Help Serial Port Debug | Output mode Phase R of 3phase output V Apply Charger source priority: Utility and Solar V Apply | Max AC charging current: 10 A Apply Max charging current: 10 A Apply Restore to the defaults |

Chart 3-4

Then, it will show detailed information of this inverter. Refer to Chart 3-5.

| SNMP Web for Off-Grid Inverter 1.0 | | | Logout Administrator |
|---------------------------------------|---------------------------------|---|----------------------|
| | | | |
| Information | AC input status: Disconnected | | <u> </u> |
| Status Basic information | Grid information | | |
| Setting | Grid voltage 0.0V | Grid frequency: 0.00Hz | |
| Parameters setting | Ghu voitage.0.0 V | Gita ilequency.0.0012 | |
| Parallel | | | |
| 55355535553555 | AC and PV information | | |
| 55355535553557 | AC output voltage: 230.0V | AC output frequency: 50.0Hz | |
| 55355535553556 | AC output apparent power:46VA | AC output active power 0VA | |
| System configuration | PV input voltage:0.0V | Max AC charger current: 10A | |
| Web | PV input current for battery:0A | | |
| E-mail | | | |
| System time | Battery information | | |
| SNMP configuration | | | |
| Log | Battery voltage 49.4V | Battery charging current 0A | |
| Event log | Battery capacity: 72% | Battery discharging current:0A | |
| Data log | Max charger current: 10A | Max charger range: 110A | |
| Help | | | |
| Serial Port Debug | Total information | | |
| | Total charging current:0A | Total AC output apparent power: 137VA | |
| | Total output active power 0VA | Total AC output percentage 0% | |
| | | , | |
| | | | |
| | Fault event | | |
| | L. | | |
| | | | ~ |

Chart 3-5

Step 2: At this time, click "Parameter Setting" again. Although it looks like same screen as Chart 3-4, it's ok to set up "parallel setting" for selected inverter. Refer to Chart 3-6.

NOTE: The remaining setting are applied for all inverters.

| SNMP Web for Off-Grid Inverter 1.0 | Pa | | Logout Administrator |
|---|---|--|---|
| Information Status Basic information Setting Parameters setting Parallel 553553553555355 553553553555355 System configuration Web E-mail System time SIMIP configuration Log | Power saving mode: C Enable O Enable D Enable | ver balance: Enable Dis put frequency: 50 Arge voltage: 46.0 arging voltage: 56.5 | able Apply hable Apply hable Apply hz Apply V Apply V Apply V Apply |
| Event log Data log Help Serial Port Debug | Parallel setting: Output model Phase R of 30hase output V Apply Max.AC chai | arging voltage 54.0 arging current 10 arging current 10 Restore to the | A Apply A Apply A Apply defaults |

Chart 3-6

- Output Mode: Only when the inverter is turned off, this setting is able to set up. The options will be different based on different inverter models.
 Single: This inverter is set for singe operation.
 - Parallel: This inverter is set for parallel operation.
 - Phase R of 3 phase output: This inverter is set to support connected loads in phase R of 3-phase output.
 - Phase S of 3 phase output: This inverter is set to support connected loads in phase S of 3-phase output.
 - Phase T of 3 phase output: This inverter is set to support connected loads in phase T of 3-phase output.
- Charger source priority: There are 4 options: utility first, solar first,

solar and utility and Solar only. If "solar first" is selected, solar power will become first charging source.

- Max.AC charging current: Click up-down arrow to set up AC charging current. For the detailed setting, please check inverter manual.
- Max. charging current: Click up-down arrow to set up maximum charging current. Maximum charging current in different inverter model may be different. Please refer to product manual for the details.

3.3 Parallel

3.3.1 Machine ID

If the inverter is parallel model, you can browse information of all parallel models by clicking each ID under parallel menu. Refer to Chart 3-7

| SNMP Web for | | | | |
|-----------------------------|---------------------------------|--------------------------------|------------------------|-------------|
| Off-Grid Inverter 1.0 | | Paralle | linformation Logout Ad | ministrator |
| | | | | |
| Information | AC input status: Disconr | rected | | <u>^</u> |
| Status Basic information | Grid information | | | |
| Setting | Grid voltage: 0.0V | Grid frequenc | v:0.00Hz | |
| Parameters setting | Ond Voltage. 0.0V | Ond requere | y.0.0012 | |
| Parallel | AC and PV information | | | |
| 55355535553555 | | | 50.011- | |
| 55355535553557 | AC output voltage: 230.0V | AC output frequenc | | |
| 55355535553556 | AC output apparent power:46VA | AC output active powe | | |
| System configuration | PV input voltage: 0.0V | Max AC charger currer | nt: 10A | |
| Web E-mail | PV input current for battery:0A | | | |
| System time | | | | |
| SNMP configuration | Battery information | | | |
| Log | Battery voltage:49.4V | Battery charging currer | nt: 0A | |
| Event log | Battery capacity: 72% | Battery discharging currer | nt: 0A | |
| Data log | Max charger current: 10A | Max charger rang | e: 110A | |
| Help | | | | |
| Serial Port Debug | Total information | | | |
| | Total charging current:0A | Total AC output apparent power | er: 137VA | |
| | Total output active power: 0VA | Total AC output percentag | | |
| | | | | |
| | Fault event | | | |
| | n | | | |
| | Ц | | | ~ |

Chart 3-7

3.4 System configuration

3.4.1 Web

It configures the authority to access SNMP webpage. Please enter access ID and password in each column. There is no any limitation to access control in default setting. Refer to Chart 3-8.

| SNMP Web for -Grid Inverter 1.0 | | | Web | Logout Administra |
|---|--------------|----------|-------------|-------------------|
| Information | | | | |
| Status | User Account | | | |
| Basic information | User Name | Password | Permission | Operation |
| Setting | user | | No Access 💌 | Apply Delete |
| Parameters setting | | | No Access 🛩 | Apply Delete |
| Parallel | | | No Access 💙 | Apply Delete |
| 55355535553555 | | | No Access 🗸 | Apply Delete |
| System time SNMP configuration Log Event log Data log Help Serial Pot Debug | | | | |

Chart 3-8

3.4.2 E-mail

It's allowed to send alarm mail by SMTP server. To use this function, the e-mail service must be correctly configured. All values in this function page are default empty. This action can't be executed without the SMTP information, e-mail account and password. Besides, the sender account should be allowed for SMTP/POP3 forwarding.

Select System Configuration >> E-mail. Refer to Chart 3-9

| SNMP Web for Off-Grid Inverter 1.0 | E-mail Logout Administrator |
|---------------------------------------|---|
| | |
| Information | SMTP server sentent test com |
| Status | SMTP server: smtp test.com Back Email: Apply Delete |
| Basic information | Port: 25 |
| Setting | Send from: |
| Parameters setting | |
| Parallel | User name: test |
| 55355535553555 | Need Auth |
| System configuration | Password: |
| Web | After apply, you can click "Test" button to send a test |
| E-mail System time | Note: message. |
| SNMP configuration | Apply Test |
| Log | |
| Event log | |
| Data log | Recipient's Email Address (for Daily Report) |
| Help | Account 1: Apply Delete |
| Serial Port Debug | Account 2: Apply Delete |
| | |
| | Send Email for Daily Report (hh:mm): at 12:00 |
| | Send Email when Event Log overflows (100 records): |
| | Send Email when Data Log overflows (500 records): |
| | Apply |
| | |
| | |
| | |

Chart 3-9

- 1. Enter SMTP server, SMTP port, sender's E-mail address, user name and password. Click checkbox of "Need Auth" for password verification.
- 2. Click "Apply" to save the changes. The "Test" button can be used to send a test e-mail to all receivers to confirm correct operation. When the test e-mails are successfully sent to specific recipients, it will pop up a successful message on operated PC. Otherwise, it will pop up a failure dialog to indicate there is an error in setting.
- 3. Enter correct e-mail accounts in Recipient section. Then, click "Apply" to add into receivers list. Click "Delete" button to delete e-mail

account.

4. Daily report will be sent to setting recipients by e-mail at specific time everyday. Please enter recipient's email address and receiving time into columns. Then, click "Apply" button to confirm. Setting recipients also receive alarm e-mail when event log exceeds 100 or data log exceeds 50 records by clicking each checkbox.

3.4.3 System time

Select System Configuration >> System time. Refer to Chart 3-10.

| SNMP Web for Off-Grid Inverter 1.0 | | System time | Logout Administrator |
|--|--|-------------|----------------------|
| Information Status Basic information Setting Parameters setting Parallel 5535553555355 System configuration Web E-mail Stystem time SIMP configuration Log Event log Data log Help Serial Port Debug | Automatic time correction interval: 12 Hours V Time server: time windows.com Time Zone(Relative to GMT): GMT V Applying daylight saving time: No V Adjust now >> System Time (mm/dd/yyyy hh:mm:se): 02/12/2014 00:35:03 Apply Auto Restart System for Every (0: Disable): 0 Minute(s) Apply Manual Restart System After 30 Seconds. Apply | | |

Chart 3-10

- Automatic time correction interval: There are five options: No, 1 hour, 12 hours, 1 day and 1 week. When interval is selected, it will automatically calibrate time.
- Time server: Please enter SNTP server IP address or domain name of time server.
- Time Zone: Select time zone based on GMT.
- Applying daylight saving time: Please choose "Yes" when your time zone is applying daylight saving time.
- System Time (mm/dd/yyyy hh:mm:ss): It is to set up SNMP web local time. Please be sure to set up correctly so that time of event log and data log will be correctly recorded.
- Auto Restart system for Every (0: Disable): XX Minute(s)
- Manual Restart system after 30 Seconds: When click "Apply" button, SNMP will restart after 30 seconds.

3.4.4 SNMP configuration

Setting SNMP basic information such as IP address, password, trap IP address, SNMP UDP port and Restore the factory settings.

Note: Some operations will cause SNMP to reboot. It's normal operation.

Select System Configuration >> SNMP configuration. Refer to Chart 3-11.

| SNMP Web for | | | | |
|--|---------------------------------------|------------------|--------------------|----------------------|
| Off-Grid Inverter 1.0 | | | SNMP configuration | Logout Administrator |
| | | Apply | | ^ |
| Information | | | | |
| Basic information | Password | | | |
| Setting | Old password: | | | |
| Parameters setting | New password: | | | |
| Parallel | Confirm password: | | | |
| 55355535553555 System configuration | · · · · · · · · · · · · · · · · · · · | Apply | | |
| System configuration Web | | | | |
| E-mail | Trap IP address | | | |
| System time SNMP configuration | Trap IP address 1: | 192.168.107.50 A | pply Delete | |
| Log | Trap IP address 2: | 0.0.0.0 A | pply Delete | |
| Event log Data log | Trap IP address 3: | 0.0.0.0 A | pply Delete | |
| Help | Trap IP address 4: | 0.0.0.0 A | pply Delete | |
| Serial Port Debug | | | | |
| | SNMP UDP port* | | | |
| | SNMP port: | 161 Ap | ply | |
| | Trap receive port: | 162 Ap | ply | |
| | | | | |
| | Restore the factory settings* | | | |
| | Confirm restore factory settings? | Restore | | |
| | | | | ~ |

Chart 3-11

- IP address: There are two methods to obtain IP address
 - Automatically obtain IP address (DHCP, default setting) The system will default automatically obtain IP addresses. If there is no this kind of service provided in LAN, the default IP will display as "192.168.102.230", Net mask as "255.255.255.0" and default gateway as "0.0.0.0".
 - 2. Use a static IP address Enter a static IP address.
- Password: Modify the password. The length of password is 8~15 digits.
- Trap IP address: The SNMP device could provide 4 static trap addresses.
- SNMP UDP port: You may change SNMP port and trap port.
- Restore the factory settings: Click "Restore" button to restore to factory default settings.

Note: The system will default automatically obtain IP address and default Password is 12345678.

3.5 Log

3.5.1 Event log

In the Event Log window, it lists all history events and can be saved as .csv file. The event log includes warnings, fault information and EMD warnings. Refer to Chart 3-12.

Select Log >> Event log.

| SNMP Web for Off-Grid Inverter 1.0 Event log Logot Administration Information Status Time Event log O2/12/2014 00:00:50 The device communication has been lost O2/12/2014 00:00:50 The device communication has been lost O2/12/2014 00:00:50 The device communication has been lost 02/12/2014 00:00:36 Connect to time server error O2/12/2014 00:00:36 Connect to time server error Veb E-mail System time SNMP configuration Log Event log Log Event log Log | |
|---|----|
| Information 1 Status 1 Basic information 02/12/2014 00:00:50 The device communication has been lost 02/12/2014 00:00:36 Parameters setting 02/12/2014 00:00:36 Connect to time server error 02/12/2014 00:00:36 System configuration 02/12/2014 00:00:36 Web 02/12/2014 00:00:36 E-mail 02/12/2014 00:00:36 SNMP configuration 02/12/2014 00:00:36 Log 02/12/2014 00:00:36 | |
| Information 1 Status Time Event name Basic information 02/12/2014 00:00:50 The device communication has been lost Setting 02/12/2014 00:00:36 Connect to time server error Paramlet 02/12/2014 00:00:36 Connect to time server error System configuration Veb E-mail System time SNMP configuration Log Event log Image: String server log Image: String server log | or |
| Status Basic information Time Event name Setting 02/12/2014 00:00:50 The device communication has been lost Parameters setting 02/12/2014 00:00:36 Connect to time server error Parallel 02/12/2014 00:00:36 Connect to time server error System configuration System configuration Configuration SyMMP configuration Log E-mail Ervent log Configuration Configuration | |
| Basic information 02/12/2014 00:00:50 The device communication has been lost Setting 02/12/2014 00:00:36 Connect to time server error Parallel 55356535653565 System configuration Web E-mail SVMP configuration Log Event log | |
| Setting 02/12/2014 00:00:30 The device communication has been tost Parameters setting 02/12/2014 00:00:36 Connect to time server error State configuration 22/12/2014 00:00:36 Connect to time server error Web E-mail 2 2 System time SNMP configuration 2 2 Log E-mail 2 2 | |
| Parameters setting Output to 0000000000000000000000000000000000 | |
| Parallel 533553553555 System configuration Web E-mail System time SNMP configuration Log Event log | |
| 5535553555 System configuration Web E-mail System time SNMP configuration Log Event log | |
| System configuration Web E-mail System time SNMP configuration Log E-went log | |
| Web E-mail System time SNMP configuration Log Event log | |
| E-mail System time SNMP configuration Log Event log | |
| System time SNMP configuration Log Event log | |
| SNMP configuration Log Event log | |
| Log Event log | |
| Event log | |
| Data log | |
| Data log | |
| Help | |
| Serial Port Debug | |
| | |
| | |
| | |
| | |
| | |
| | as |
| | |
| | |

Chart 3-12

3.5.2 Data Log

In the Data Log window, it will list all history logs and can be save as .csv file. Refer to Chart 3-13.

Select Log >> Data log.

| Grid Inverter 1.0 | | | | | Data | og Logout | Administrator |
|--------------------|---------------------|------------------|-------------------|----------------------|---------|--------------------|---------------|
| Information | | | | 1 | | | |
| Status | Time | Input voltage(V) | Output voltage(V) | Output frequency(Hz) | Load(%) | Battery voltage(V) | Temp.(°C) |
| Basic information | 02/12/2014 00:35:26 | 52.8 | 230.3 | 50.0 | 52 | 51.9 | 50.0 |
| Setting | 02/12/2014 00:34:26 | 56.4 | 228.1 | 50.0 | 51 | 51.9 | 50.0 |
| arameters setting | 02/12/2014 00:33:25 | 51.8 | 229.2 | 50.0 | 51 | 51.8 | 49.0 |
| Parallel | 02/12/2014 00:32:24 | 51.8 | 229.7 | 50.0 | 52 | 51.8 | 49.0 |
| 55355535553555 | 02/12/2014 00:31:24 | 51.8 | 228.4 | 50.0 | 51 | 51.8 | 49.0 |
| stem configuration | 02/12/2014 00:30:24 | 51.8 | 228.8 | 50.0 | 51 | 51.8 | 49.0 |
| Web E-mail | 02/12/2014 00:29:24 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| System time | | | | | | | |
| SNMP configuration | | | | | | | |
| Log | | | | | | | |
| Event log | | | | | | | |
| Data log | | | | | | | |
| Help | | | | | | | |
| Serial Port Debug | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Chart 3-13

3.6 Help

3.6.1 Serial Port Debug

It's to useful tool to verify communication problems between SNMP web card/box and device. Users can send commands in this webpage and it will get query result from output window. It will help technical support personnel to verify problems.

Select Log >> Event log. Refer to Chart 3-14.

| SNMP Web for Off-Grid Inverter 1.0 | | Se | erial Port Debug | Logout Administrator |
|--|---------------------------------|----|------------------|----------------------|
| Information Status Basic information Setting Parameters setting Parallel 5535553555555 System configuration Web E-mail System time SIMP configuration Log Data log Help Senial Port Debug | Send command: Output window: | | Send | Clear |
| | | | | |

Chart 3-14