MyGreen Solar Monitor
# PC Software Operation

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1. Precautions Before Connecting

1.1. Make sure the RS485 communication cable is a Tycon PN TP-SC-USB-RS485.   (Note: Because the protocols used by different manufacturers are different, they are not universally compatible)

1.2. Compatible Windows system: Windows XP; Windows VISTA; Windows2003(32-bit & x64-bit); Windows2008(32-bit & x64-bit); Windows 7 (32-bit & x64-bit); Windows8 (32-bit & x64-bit); Windows10 (32-bit & x64-bit)

1.3. Note: This guide is geared toward Windows 10. Other versions of Windows will be similar.

1.4. Compatible with the following Tycon MPPT controllers:

**TP-SC24-30N-MPPT**

TP-SC24-60N-MPPT

TP-SC48-60P-MPPT

2. Installation Steps

2.1. The MPPT Solar Controller must be powered up and no errors present on the upper right corner of the display.

2.2. Insert the TP-SC-USB-RS485 cable USB connector to a USB port on the PC.

2.3. Connect the RJ45 connector to either of the MPPT Solar Controllers RS485 Ports.

2.4. Install MyGreen Solar Monitor software to your windows PC from the Tyconsystems.com website: https://tsi.tyconsystems.com/Assets/MyGreenSolarMonitor_Install-PC.zip

2.5. Double-click the MyGreen Solar Monitor PC software icon to launch the software.
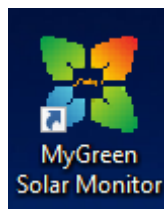
3. Real-time communication monitoring

3.1. When the software is opened, the com port setup screen will show.
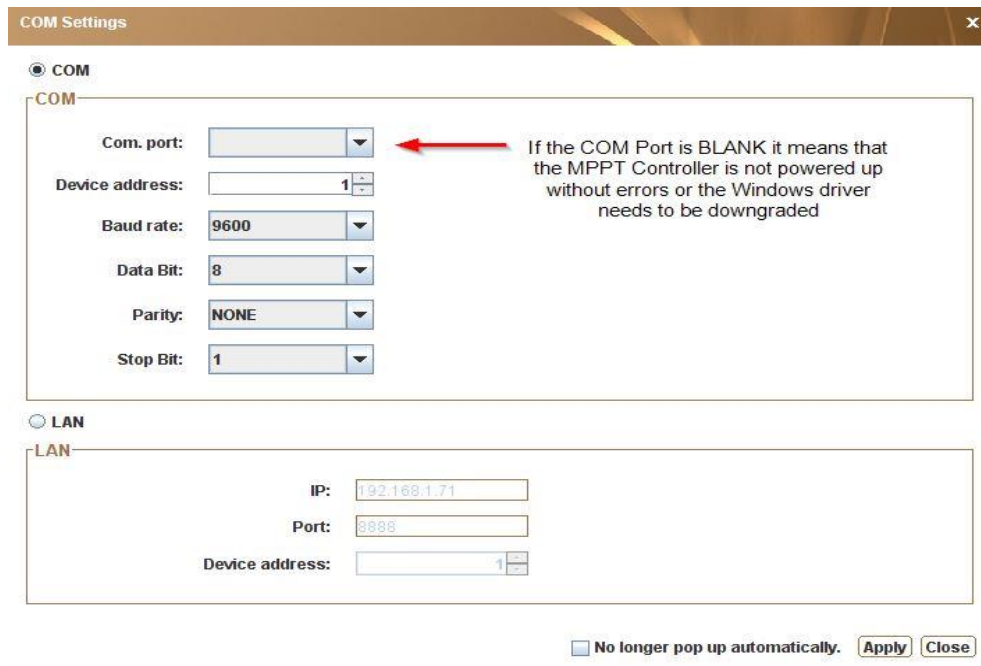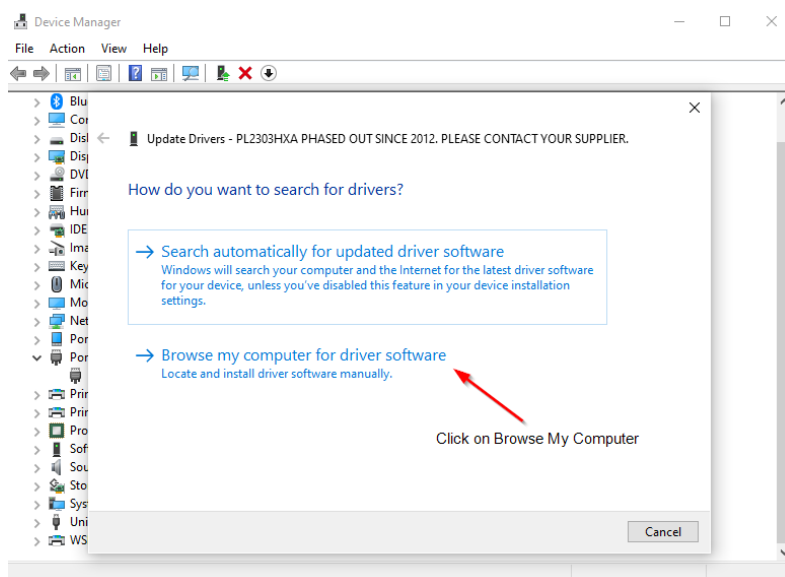

3.2. If the COM port is blank it means that MPPT Controller is not powered up without errors in the upper right corner of the screen or the Windows Driver needs to be downgraded.

3.2.1. **MPPT Controller Issue:** Check upper right corner of display for any errors. Refer to user guide for error description. Clear any errors.

3.2.2. **Windows Driver Issue:**

3.2.2.1. Open Windows Device Manager by typing "Device Manager" in the Windows search box or opening Control Panel and navigating to Device Manager.

3.2.2.2. Find "Ports (COM & LPT)" and expand the selection to see all COM devices.

If you see this "Phased Out" text or an exclamation point in a yellow triangle error icon, it means the windows driver needs to be downgraded

PL2303HXA PHASED OUT SINCE 2012. PLEASE CONTACT YOUR SUPPLIER.

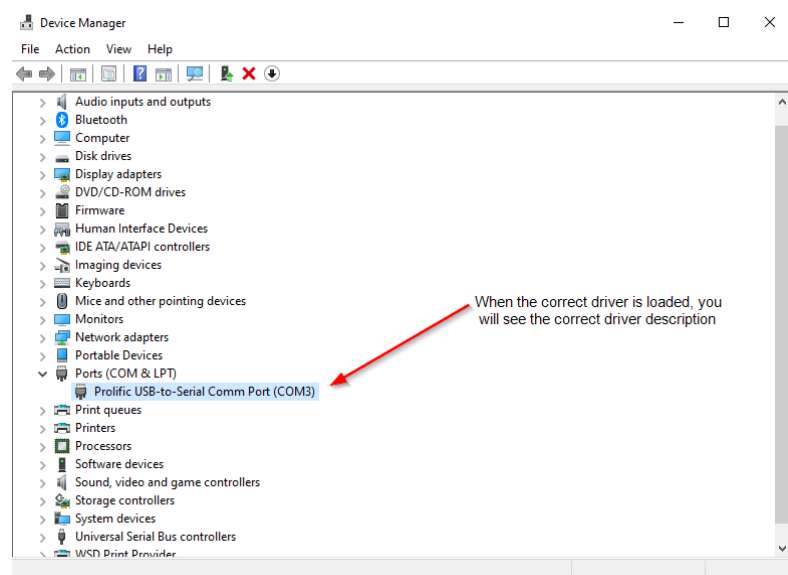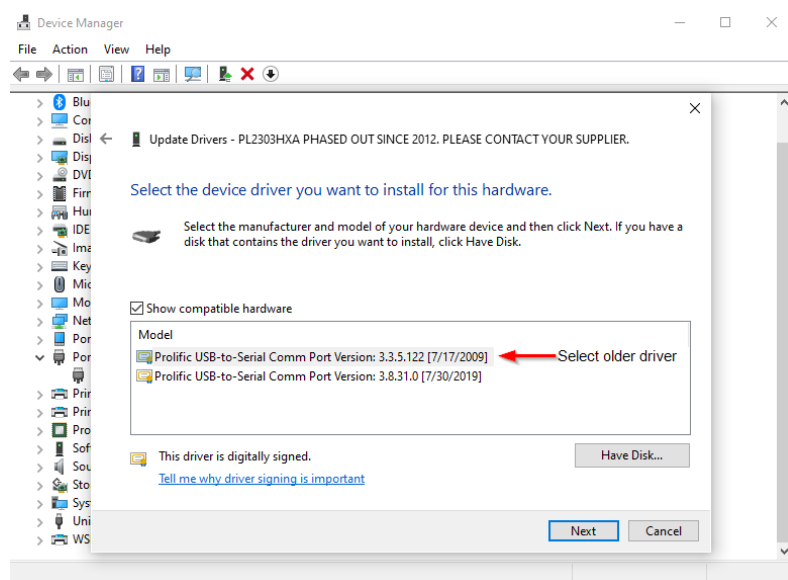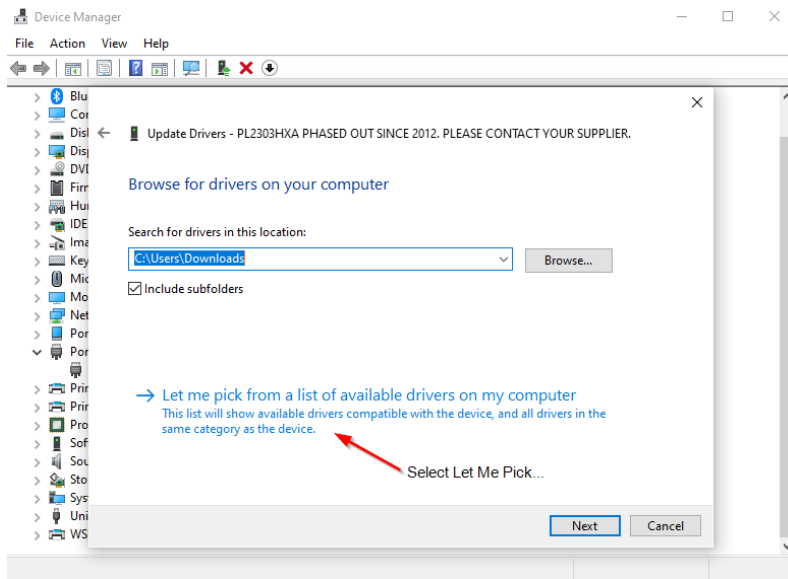

Right Click on wrong driver

Select Update Driver

Update driver
Disable device
Uninstall device

Scan for hardware changes

Properties

Update Drivers - PL2303HXA PHASED OUT SINCE 2012. PLEASE CONTACT YOUR SUPPLIER.

How do you want to search for drivers?

→ Search automatically for updated driver software
Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.

→ Browse my computer for driver software
Locate and install driver software manually.

Click on Browse My Computer

Cancel

Device Manager

File   Action   View   Help

Update Drivers - PL2303HXA PHASED OUT SINCE 2012. PLEASE CONTACT YOUR SUPPLIER.

Browse for drivers on your computer

Search for drivers in this location:

C:\Users\Downloads   Browse...

☑ Include subfolders

→ Let me pick from a list of available drivers on my computer
This list will show available drivers compatible with the device, and all drivers in the same category as the device.

Select Let Me Pick...

Next   Cancel

Device Manager

File   Action   View   Help

Update Drivers - PL2303HXA PHASED OUT SINCE 2012. PLEASE CONTACT YOUR SUPPLIER.

Select the device driver you want to install for this hardware.

Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.

☑ Show compatible hardware

Model
Prolific USB-to-Serial Comm Port Version: 3.3.5.122 [7/17/2009]   ← Select older driver
Prolific USB-to-Serial Comm Port Version: 3.8.31.0 [7/30/2019]

This driver is digitally signed.   Have Disk...
Tell me why driver signing is important

Next   Cancel

Device Manager

File   Action   View   Help

> Audio inputs and outputs
> Bluetooth
> Computer
> Disk drives
> Display adapters
> DVD/CD-ROM drives
> Firmware
> Human Interface Devices
> IDE ATA/ATAPI controllers
> Imaging devices
> Keyboards
> Mice and other pointing devices
> Monitors
> Network adapters
> Portable Devices
∨ Ports (COM & LPT)
    Prolific USB-to-Serial Comm Port (COM3)   ← When the correct driver is loaded, you will see the correct driver description
> Print queues
> Printers
> Processors
> Software devices
> Sound, video and game controllers
> Storage controllers
> System devices
> Universal Serial Bus controllers
> WSD Print Provider

3.3. If the COM Port shows a specific port like COM1, COM2, COM3, etc, then the communications between the Windows PC and the MPPT Solar Controller is good.

3.4. Click on Apply, enter the password (Default = mpptsolar). After about 5 seconds the display should update and start showing real-time parameter readings from the MPPT Solar Controller.
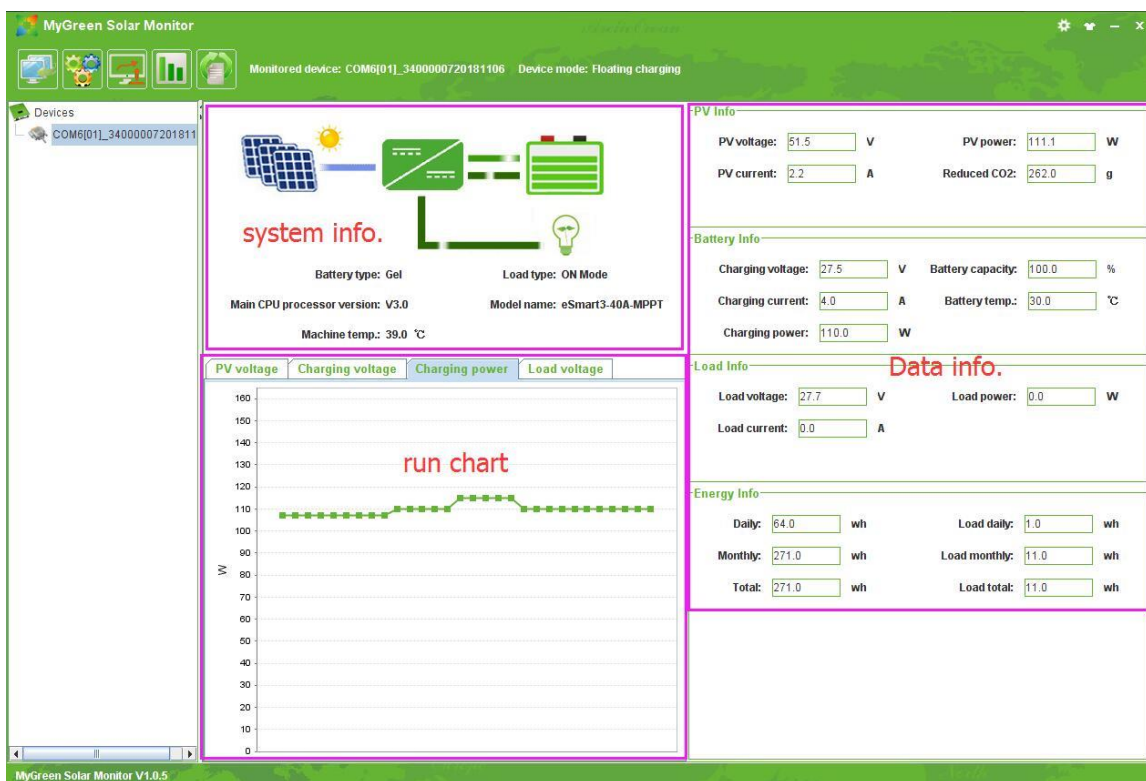
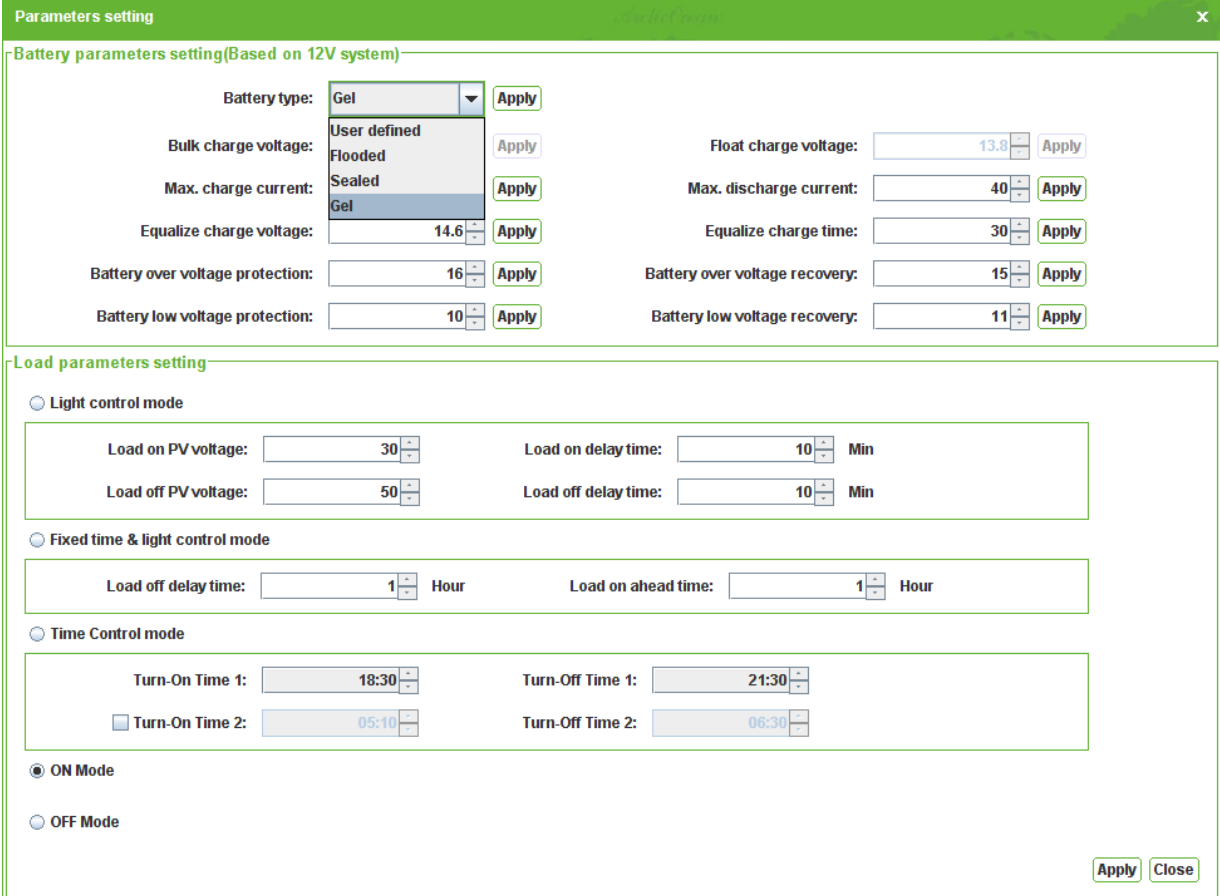3.5. Real-time monitoring parameters are as follows:

System overview: battery type, load type, program version, product name, machine temperature

Trend graph: PV voltage, charging voltage, charging power, load voltage

Data information: PV information (PV voltage / current / power, carbon dioxide emission reduction); Battery information (charging voltage, charging current, charging power, battery power, battery temperature); Load information (load voltage, load current, load power); Generation power information (day/month/total generation power, daily/month/total load power consumption)

4. Introduction to PC software buttons & functions

4.1. *Battery Parameter settings:*

4.1.1. **Battery types supported in the PC software:** Flooded, Sealed, Gel, and User defined.

4.1.2. The controller is preconfigured for 3 kinds of conventional batteries and their

standard charging parameters. To charge other types of batteries, please select "User", then set up by PC software or APP. For Li-ion, setup the parameters on the MPPT controller front panel or the Mobile App per the user manual that comes with the units.

4.1.3. Note: To change battery voltage from "AUTO" to a specific voltage you need to use the Mobile App

Battery Type	Constant Voltage = C*N (V)	Float Voltage = F*N (V)	
Flooded (FLD)	14.6*N	13.8*N	1. C= Constant Voltage Charging Voltage 2. F= Float Charging Voltage 3. N= Number of 12V battery in series [e.g. N=2, battery system is 24V] 4. **Example:** If battery system is 48V, then N=4, If battery system is 24V then N=2, if battery systems is 12V then N=1
Sealed (SEL)	14.4*N	13.8*N	
Gel (GEL)	14.2*N	13.8*N	
User (USE)	Custom*N	Custom Float*N	

4.1.4. Users can configure battery parameters: maximum charge and discharge current, boost charge voltage and charge time, battery over voltage protection point and recovery point, low voltage protection point and recovery point.

4.1.5. If you need to set the "User Defined" parameters, please contact the battery manufacturer or dealer for the relevant battery charging parameters to be able to set the correct charging voltages.

4.1.6. Regardless of the type of battery and battery system voltage, the battery parameters of the PC software must be configured based on a single 12V battery. The controller will automatically recognize and convert the voltage values based on the actual system voltage.
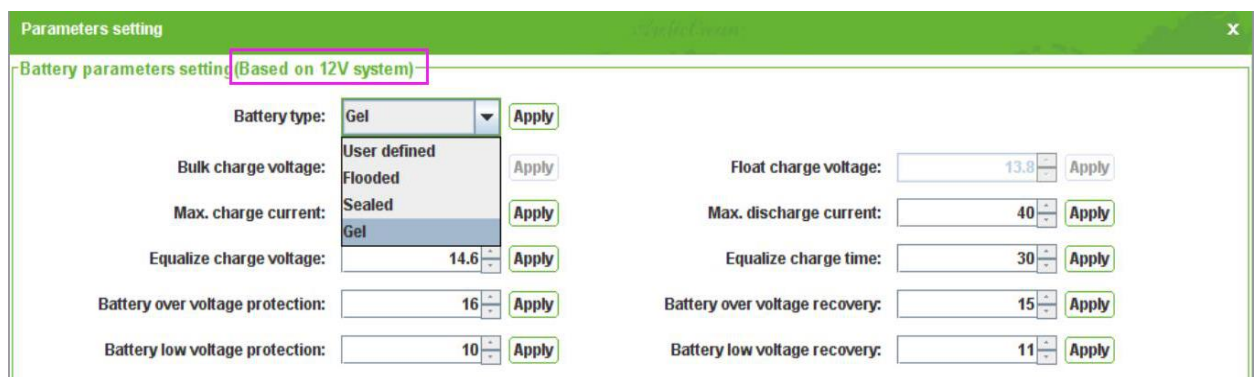
4.2. Load Parameter Settings

4.2.1. Light control mode: user can set the Load on/off delay time base on the PV voltage.

4.2.2. Fixed time & light control mode: user can set the Load on time and off delay

time base on the Time & PV voltage.

4.2.3. Time control mode: user can set the Load on/off based on the dual time.

4.2.4. Manual Mode - ON Mode and OFF Mode - ON Mode turns ON the MPPT Controller's load output. OFF Mode turns OFF the MPPT Controller's Load output.

4.3. Password :

Set a new password. For security reasons, we recommend setting a new password once you are familiar with the operation of the PC software

4.4. Real-Time Control

On this page users can configure time synchronization, clear power generation and load power consumption, LCD backlight time, Controller LCD button disable, battery temperature units.
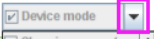
4.5. History Data

Data

Device type:	Charger	Device:	3400000720181106	Display item:	☑ Device mode	Time period:	2018-11-06	--	2018-11-06	Browse

Device mode	Time	PV voltage	Charging volta...	Charging curr...	Machine temp...	Battery temp...	Charging power	Load voltage	Load current	Load power	Battery capacity
Floating char...	2018-11-06 1...	51.6	27.6	3.1	38.0	30.0	85.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.2	39.0	30.0	88.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.3	40.0	30.0	91.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	3.2	40.0	30.0	88.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	3.3	40.0	30.0	91.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	2.3	41.0	29.0	63.0	27.6	1.4	38.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	2.8	36.0	30.0	77.0	27.6	1.1	30.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	3.4	35.0	30.0	93.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.7	36.0	30.0	102.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.5	3.6	36.0	30.0	99.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.8	37.0	30.0	104.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.8	37.0	30.0	104.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.9	38.0	30.0	107.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.5	3.9	38.0	30.0	107.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.0	39.0	30.0	110.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.0	39.0	30.0	110.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	4.0	39.0	30.0	110.0	27.6	0.0	0.0	100.0

Export Clear Close

4.5.1. Click the button "Display item" ☑ Device mode ▼ to select items to display: working mode, time, PV voltage, charge voltage, charge current, machine temperature, battery temperature, charge power, load voltage, load current, load power, battery power;

4.5.2. Click the "Time period" icon 📅 to view history data for a certain time period.

4.5.3. Click the "Browse" button to view the selected data.

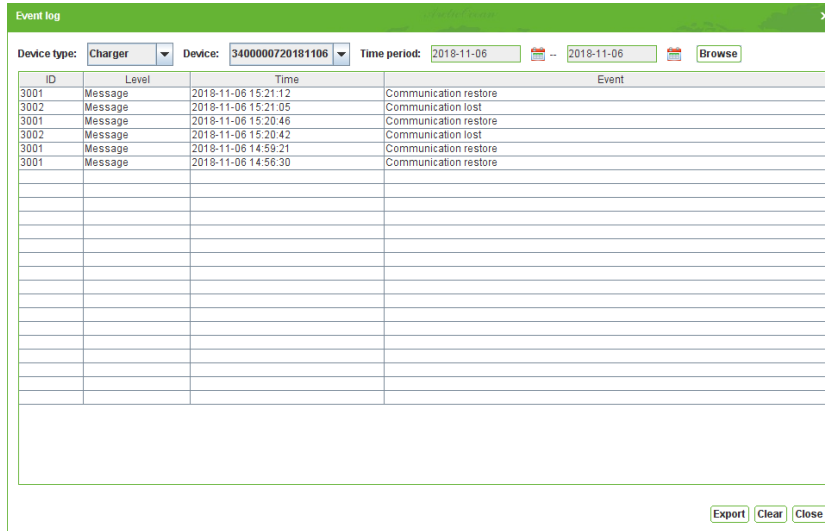**Data**

Device type:	Charger	Device:	3400000720181106	Display item:	☑ Device mode	Time period:	2018-11-06	--	2018-11-06	Browse

Display item dropdown:
- ☑ Device mode
- ☑ Time
- ☑ PV voltage
- ☑ Charging voltage
- ☑ Charging current
- ☑ Machine temp. (℃)
- ☑ Battery temp. (℃)
- ☐ Charging power

Device mode	Time	PV voltage	Charging volta...	Charging curr...	Machi...	...harging power	Load voltage	Load current	Load power	Battery capacity
Floating char...	2018-11-06 1...	51.6	27.6	3.1	38.0	5.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.2	39.0	8.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.3	40.0	1.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	3.2	40.0	8.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	3.3	40.0	1.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	2.3	41.0	3.0	27.6	1.4	38.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	2.8	36.0	7.0	27.6	1.1	30.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	3.4	35.0	3.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.7	36.0	02.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.5	3.6	36.0	99.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.8	37.0	104.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.8	37.0	104.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.9	38.0	107.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.5	3.9	38.0	107.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.0	39.0	110.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	4.0	39.0	110.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.9	39.0	107.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.5	3.9	39.0	107.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.0	39.0	110.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.5	3.9	39.0	107.0	27.5	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.1	39.0	113.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.2	40.0	115.0	27.6	0.0	0.0	100.0

Export Clear Close

4.6. Event Log

This page is for checking the MPPT controller login and logout records

4.6.1. Note: History data and event log can be exported in PDF files. Click "Export" in the lower right corner to export and save.

4.7. Language Setting