How to connect a power meter to SmartLogger1000&2000

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Version	Created by	Date	Remarks
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Background:

The SmartLogger1000&2000 can be connected to and manage only one power meter that supports the Modbus-RTU.
The SmartLogger1000&2000 can be connected to and manage multiple power meters that support the DL/T645 protocol.

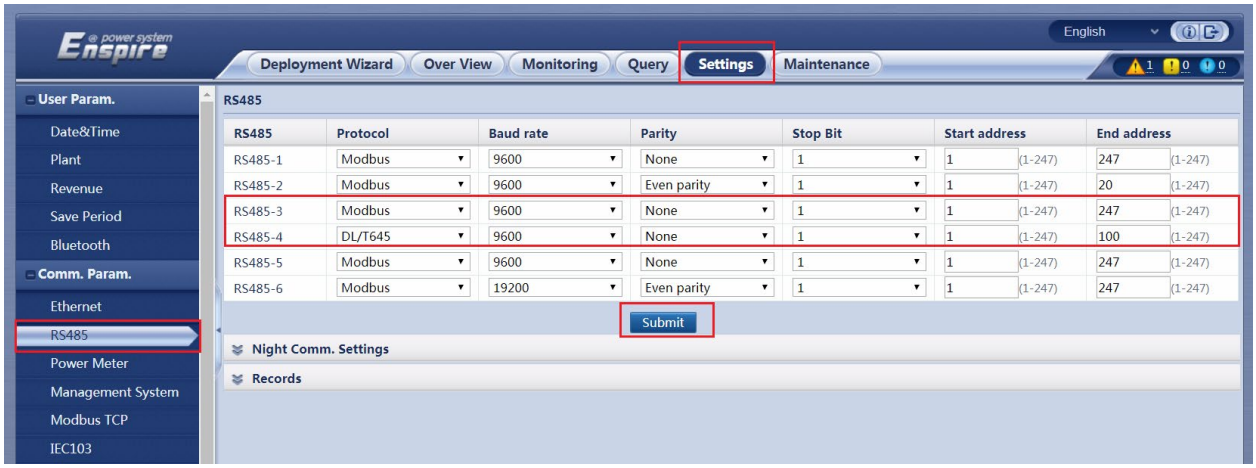
Application Notice:

A multifunctional power meter consists of the measurement unit and data processing unit. It provides time division and required electricity measurement functions in addition to the active/reactive power measurement. The power meter can also display, store, and output data.

Procedure:

1. **Configure the communication and protocol for the port**

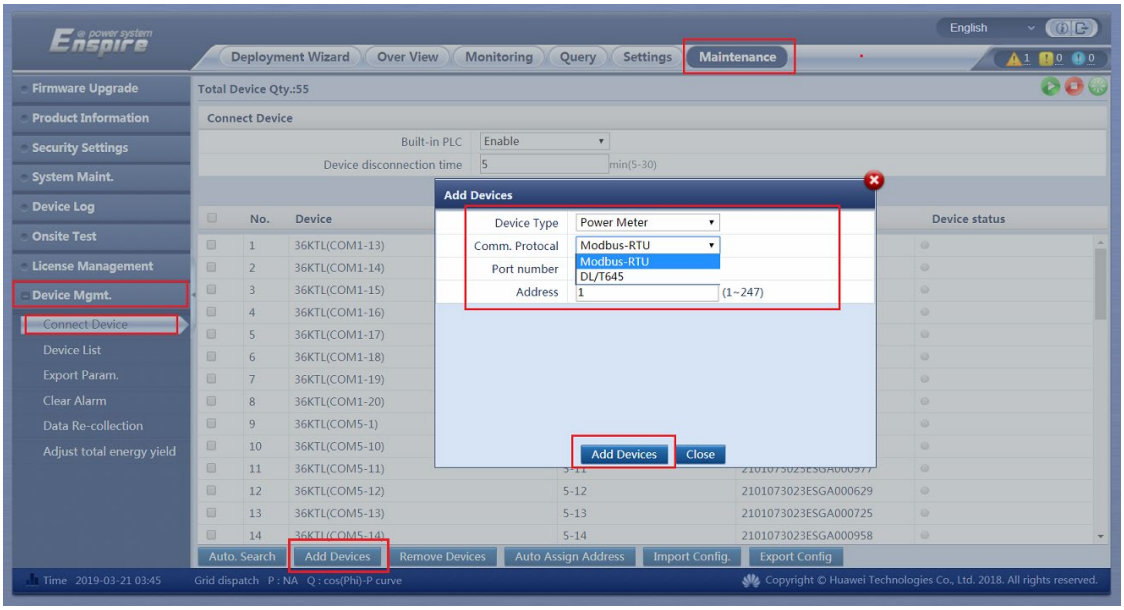
Log in to the WebUI as an advanced user, click the **Settings** tab, and choose **RS485**. On the displayed page, set **Protocol** to **DL/T645/** or **Modbus,** set the parity and baud rate accordingly with the power meter instruction and **Submit.**



The default parity mode is even parity for DL/T645. Set parameters based on the power meter instructions.
According to DL/T645, the default baud rate is 2400 bps. Set **Baud rate** based on the power meter instructions. The SmartLogger supports 2400 bps, 4800 bps, 9600 bps, 19200 bps, and 115200 bps at present.

2. Adding a power meter on the WebUI

As an **Advanced User** or a Special User and click the Maintenance tab.
Choose Device Mgmt. →Connect Device, and click **Add Devices**. In the displayed dialog box, set Device Type to Power Meter, Comm. protocol to **DL/T645** or **Modbus RTU**, **Port number** where the meter is connected, and specify Address correctly, as shown in the following figure:

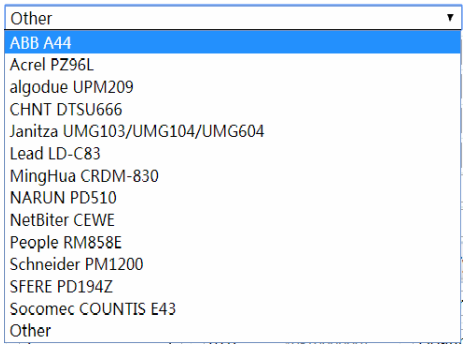


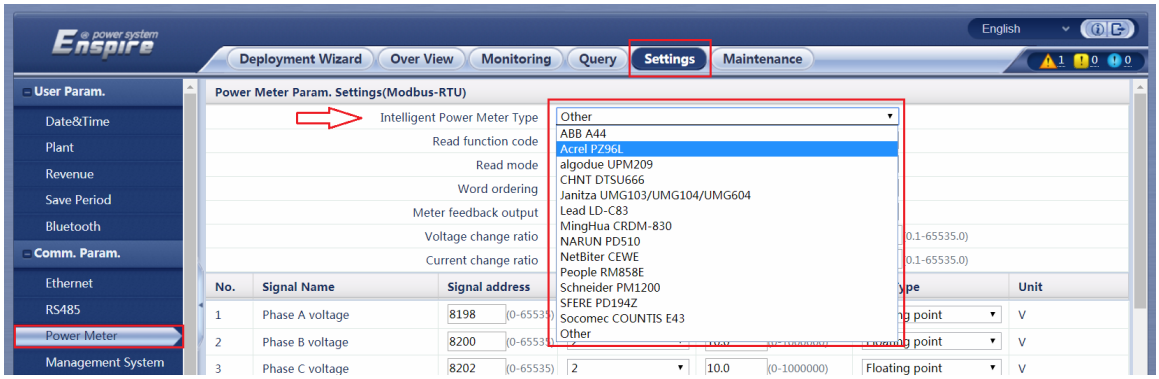
The SmartLogger1000&2000 can connect to multiple power meters with DL/T645 protocol. Ensure that the addresses of the power meters are not duplicate.

3. Setting Power Meter Parameters

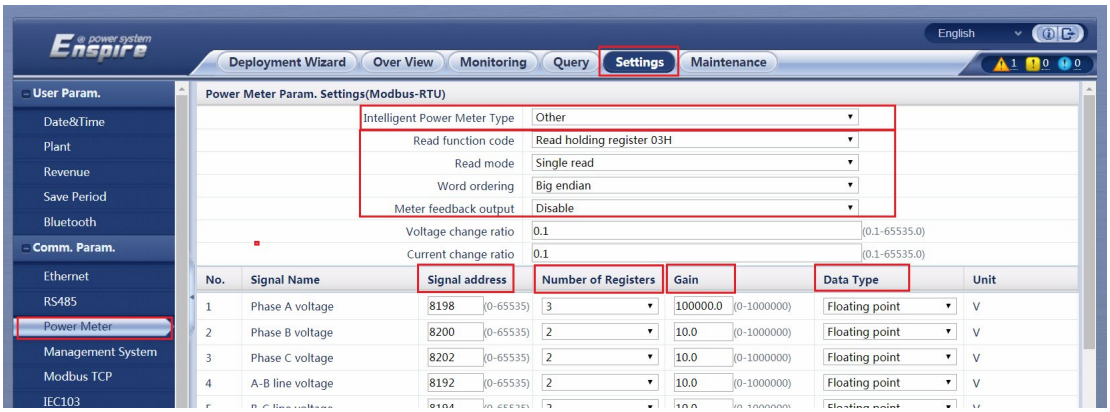
3.1 Power meter with Modbus RTU protocol

As Advanced User or Special User choose Settings→Power Meter and select the power meter type:



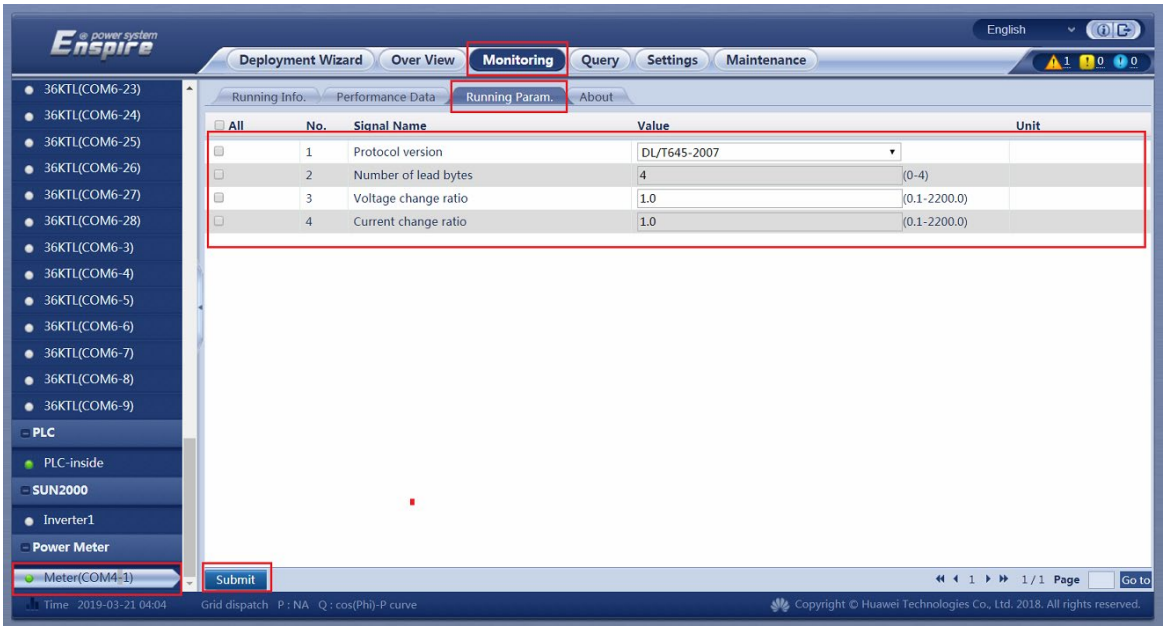


If the power meter is not define by default in the Smartlogger1000&2000 list you need to choose **Power Meter Type Other** and fill the **Signal address**, **Number of Register**, **Gain** and **Data Type** accordingly with the meter instruction:



3.2 Power meter with DL/T645 protocol

If you connect a meter with DL/T645 protocol set the running parameter like below:
From Monitoring menu select the Meter→Running Param. → set the parameter accordingly with the meter instruction



4. Querying device running information

From **Monitoring** menu select the **Meter** and check the device status and the value that the meter reading are correct: