Shark® 200T Transducer Quickstart Guide

CAUTION! Installation of the Shark® 200 meter must be performed only by qualified personnel who follow standard safety precautions during all procedures. Those personnel should have appropriate training and experience with high voltage devices. Appropriate safety gloves, safety glasses and protective clothing are recommended.

During normal operation of the Shark® meter, dangerous voltages flow through many parts of the unit, including: Terminals and any connected CTs (Current Transformers) and PTs (Potential Transformers), all I/O Modules and their circuits. All Primary and Secondary circuits can, at times, produce lethal voltages and currents. Avoid contact with any current-carrying surfaces.

Do not use the meter or any I/O device for primary protection or in an energy-limiting capacity. The meter can only be used as secondary protection.

IMPORTANT! Refer to your meter's Installation and Operation Manual for additional safety warnings before performing installation, wiring, or maintenance of your meter. See the link to the manual, below.

NOTE: This Quickstart Guide gives basic installation, wiring, and programming instructions.For additional meter operation and programming information, refer to your meter's *Installation and Operation Manual* and the *Communicator PQA™, MeterManagerPQA™, and EnergyPQA.com™ Software User Manual* on EIG's website:

User Manual:
https://www.electroind.com/products/shark-200-data-logging-power-meter-transducer/
From the webpage, click Technical Documents>User Manual.

Software Manual:

https://www.electroind.com/products/communicatorpqa-software-application-5/
From the webpage, click Technical Documents>User Manual.

CommunicatorPQA™ Setup Software:

https://www.electroind.com/products/communicatorpqa-software-application-5/
From the webpage, click Download ComPQA Pro. To get a Professional license for the software, email sales@electroind.com or call 516-334-0870.

All EIG's metering and software products' literature can be accessed from:
https://www.electroind.com/all-products/

For software and metering integration, EIG's Technical Support Engineers are available on an hourly or daily basis to help with typical commissioning assistance, which includes:

• Verifying meter installation and wiring.

• Verifying proper system integration.

• Working with 3rd parties to ensure cross compatibility.

• Advising users on best practices for optimal implementation.

You can reach Technical Support from 8 a.m. to 8 p.m. EST, Monday-Friday, at 516-334-0870.
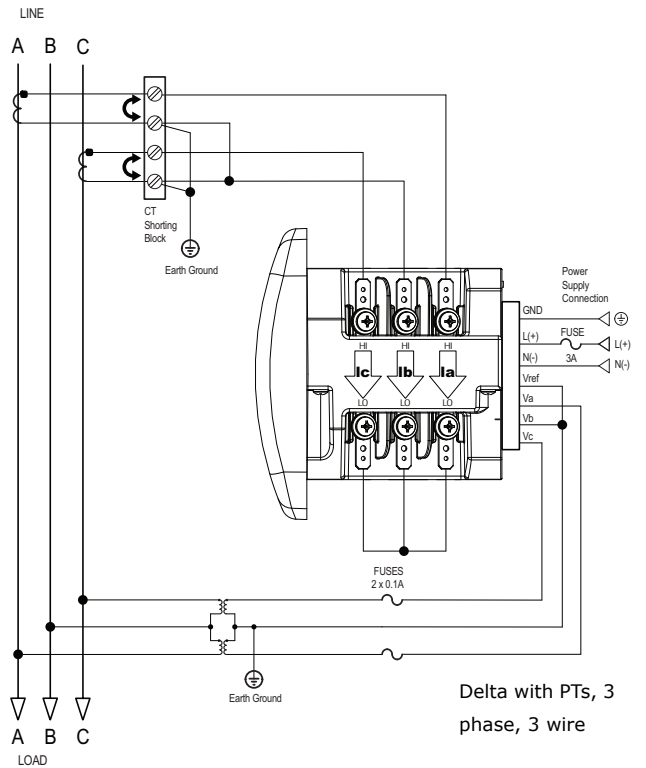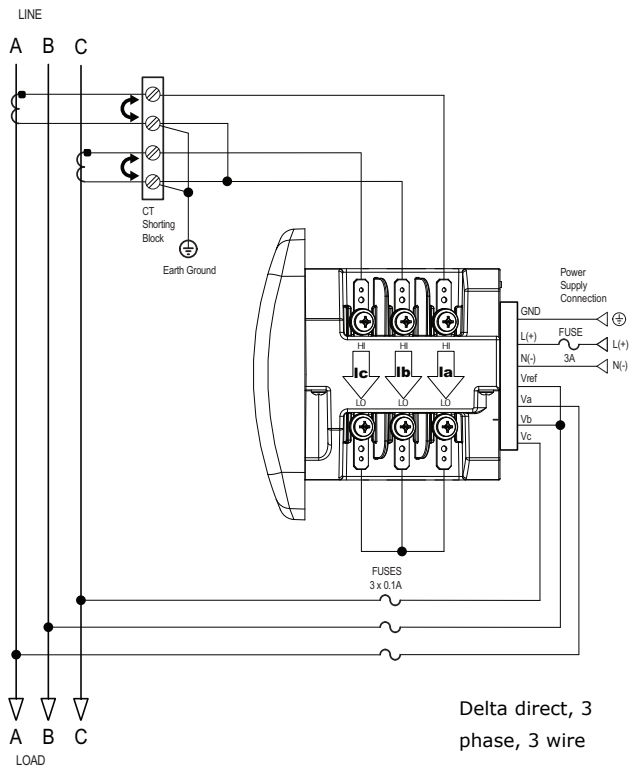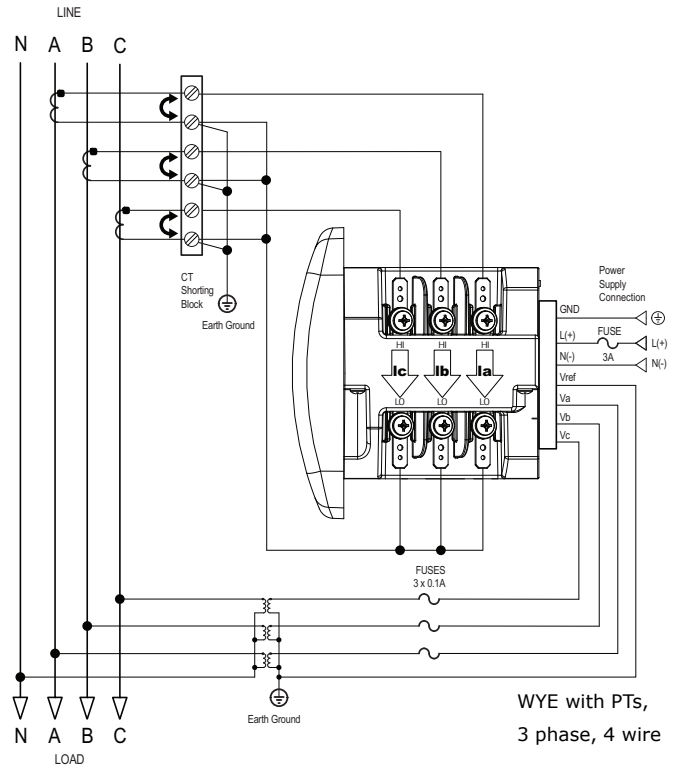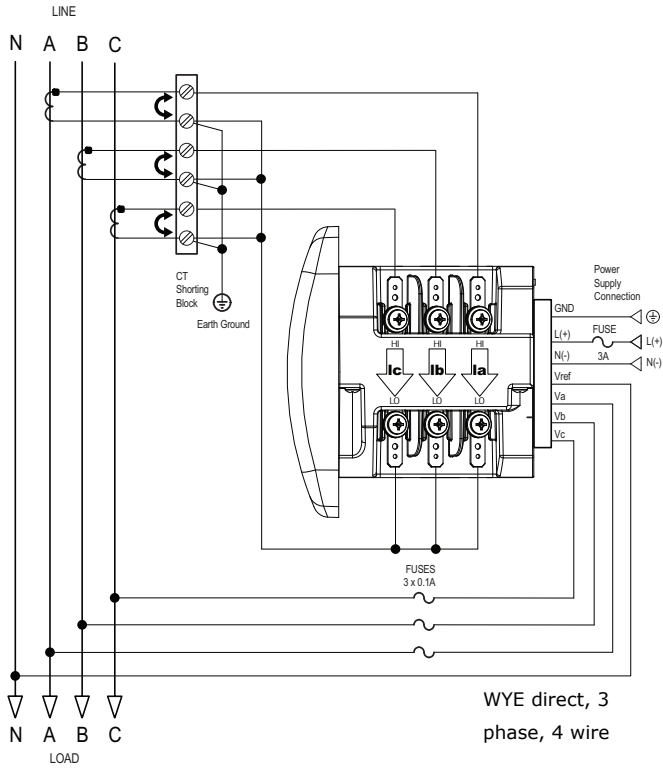
Mechanical Installation

**DIN Rail with
Black Rubber Stoppers**

Release Clip
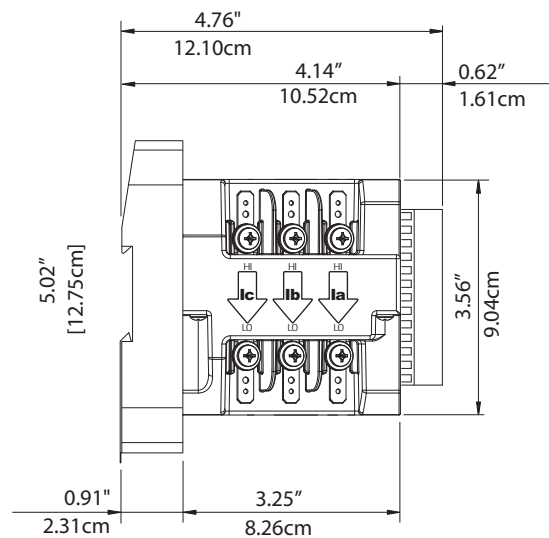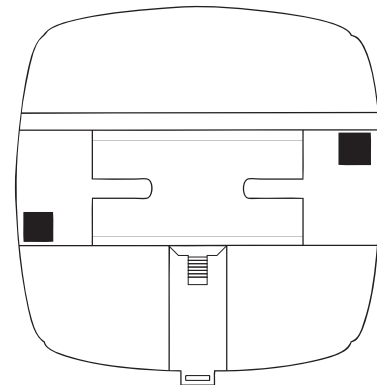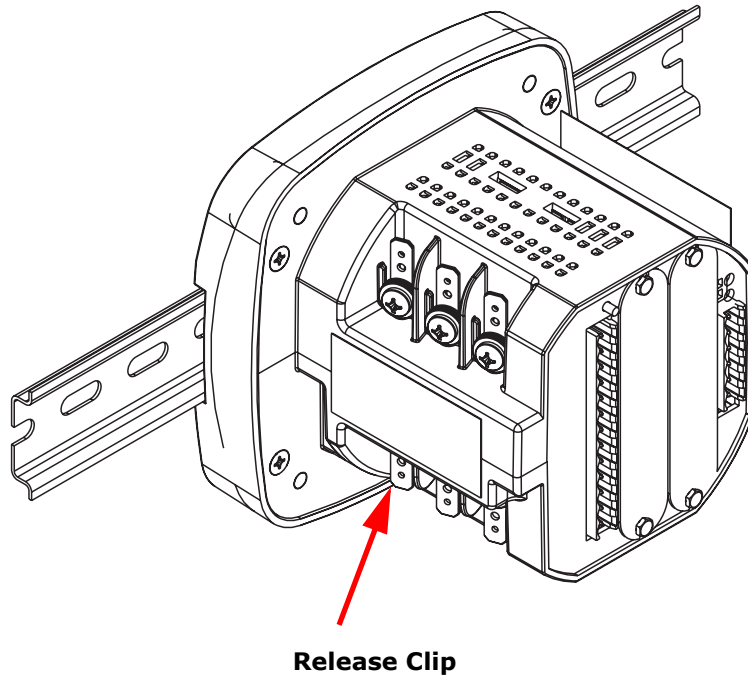
200 T Dimensions

Installation Steps:

1. Slide top groove of meter onto DIN Rail.
2. Press gently until the meter clicks into place. If mounting with DIN Rail provided, use Black Rubber Stoppers (also provided) shown above.

To remove meter, pull down on the Release clip.

Electrical Installation: Select diagram for your application.

WYE direct, 3 phase, 4 wire

WYE with PTs, 3 phase, 4 wire

Delta direct, 3 phase, 3 wire

Delta with PTs, 3 phase, 3 wire

Connect to the Meter through the RS485 Port:
The Shark® 200 meter has a standard RS485 port that makes connection between the meter and a laptop PC very simple.The Shark® 200 meter's RS485 port uses standard 2-wire, half duplex architecture.
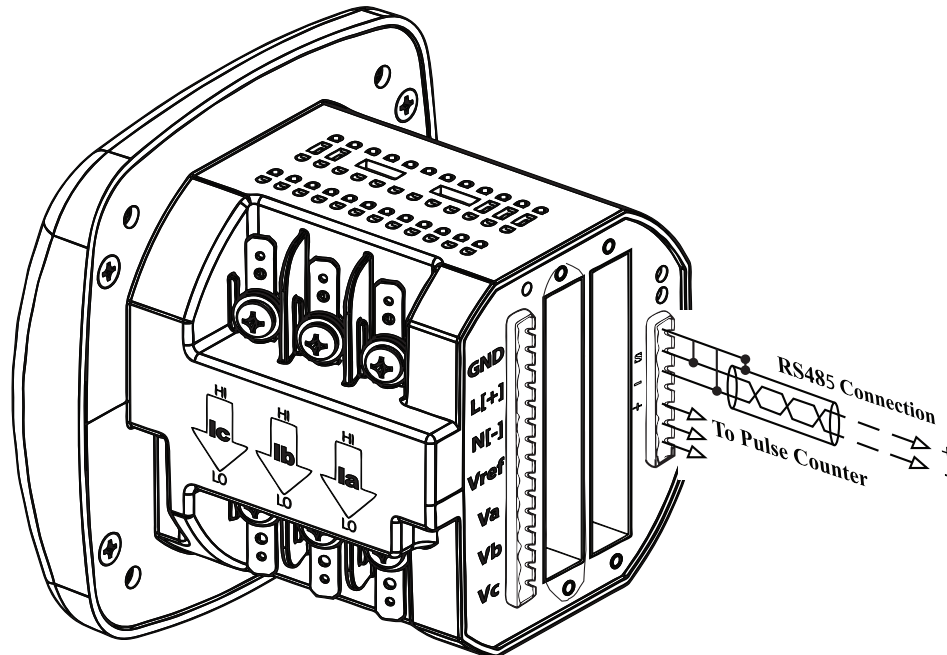
Factory Initial Default Settings: When the Shark® 200 is powered up, for 10 seconds you can connect to the meter using the Factory Default Settings (even if the Device Profile has been changed). After 10 seconds, the Device Profile reverts to the actual Device Profile in use. This is one way you can always connect to the meter. The Factory Initial Default Settings are:

Device Address:1

Baud Rate:57600

Protocol:Modbus RTU

Follow these steps to connect to the meter via RS485:

1. Connect the meter to the PC, using an RS485 cable. EIG offers a RS485 to USB connector, which can be ordered from EIG's website: https://www.electroind.com/product/rs485-to-usb-communication--converter/.

2. Open CommunicatorPQA™ software (see page QS-1 for the download link).
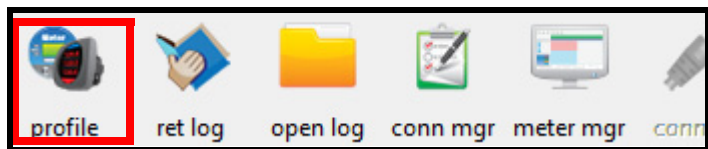
3. Click **Connect** in the Icon Bar.
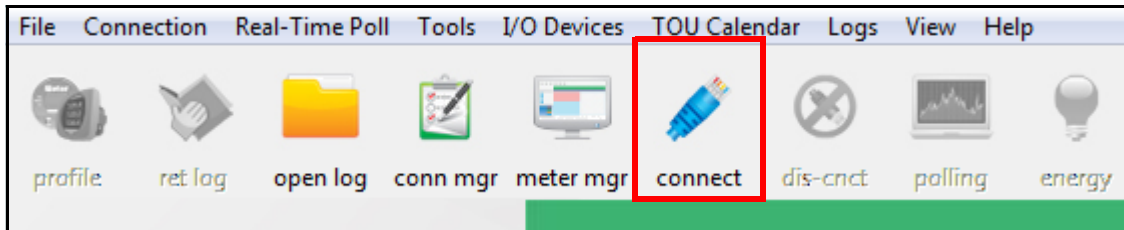
4. You will see the Connect screen. Make sure your settings match the ones shown on the right (use pull-down menus).
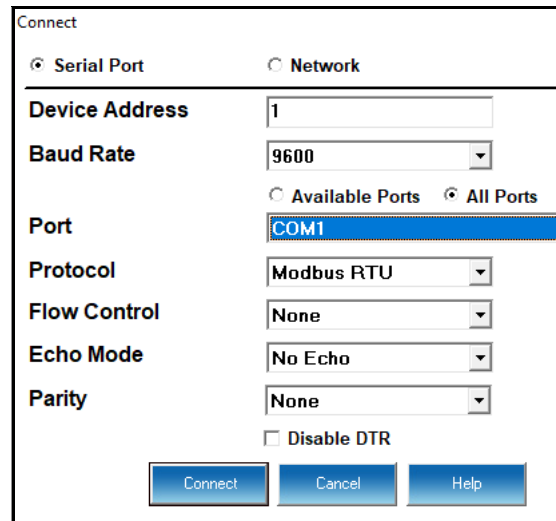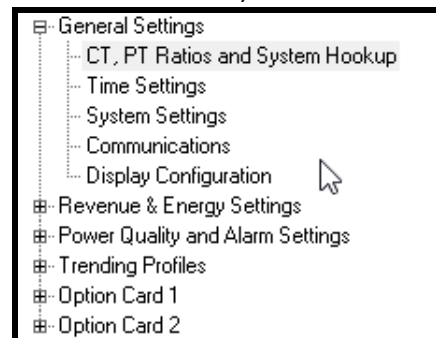
5. Click **Connect**. The Device Status screen confirms the connection. Click OK to close the Device Status screen.

6. Click the **Profile** button on the Icon bar.

7. The Device Profile screen opens. The Tree menu on the left side of the screen lets you choose setting screens. Click on a plus sign to view the settings screen options.

Program CT, PT Ratios:

1. This is the first Device Profile screen. To return to this screen from another settings screen, click General Settings>CT, PT Ratios and System Hookup.

2. These are the settings:

a. CT Numerator (enter value you want), Denominator (display only), Multiplier (1, 10, or 100), CT Fullscale (Calculated automatically)

b. PT Numerator (enter value you want), Denominator (enter value you want), Multiplier (1, 10, 100, or 1000), PT Fullscale (Calculated automatically)

NOTE: Voltage Full Scale = PT Numerator x PT Multiplier

Current Full Scale = CT Numerator x CT Multiplier

IMPORTANT! Specify Primary and Secondary Voltage in Full Scale (NOT Ratios).

NOTE: You can also enter the Ratios for CT/PT Numerator and Denominator and click the Update CT/ Update PT buttons to let the software calculate the Numerator, Denominator, and Multiplier for you. You can then empty the Ratio fields and click the Update Ratio buttons to confirm the calculated settings: you will see the same ratios you initially entered.

See Chapter 8 in the software manual for additional screen settings instructions (see page QS-1; alternatively, you can click Help>Contents from the CommunicatorPQA™ software's Main screen).

Program Communications:

1. Click General Settings>Communications.
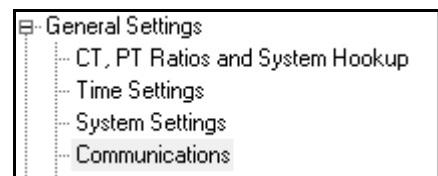
2. The settings shown on the screen are the default settings for the meter's IrDA (COM1 and RS485 (COM2) ports. You can change the settings, if necessary for your application. To revert to the default RS485 port settings, click Set COM2 to default.

NOTE: For the Shark® 200T meter, the IrDA settings do not apply, since there is no IrDA port.

Program Meter Time: The meter is preset to Eastern time. To change the meter time:

1. From the Main screen's Title bar, click Tools>Set Device Time.

2. You can either enter the time in the Time fields, or click Use PC Time to set the time using your PC's time.

3. Click Send.

NOTE: The meter offers multiple Time Synchronization methods. See Chapter 8, Section 8.1.2 in the software manual (see page QS-1; alternatively, you can click Help>Contents from the Main screen to open the manual) for instructions on setting up Time Sync for the meter.
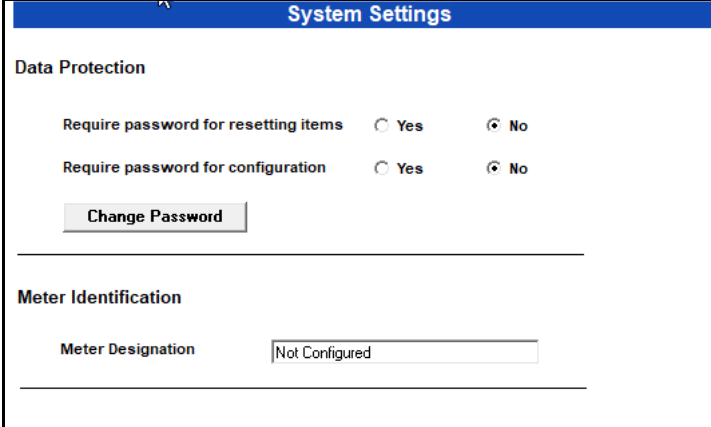
Program Meter Name:

To enter a name/ID for the meter:

1. From the Device Profile screen, click General Settings>System Settings.

2. Input a new meter designation into the

field. Note that it is important to name each meter individually, since the meter name is used to name the log databases when logs are downloaded.

See Chapter 8 in the software manual for an explanation of the other settings in this screen.

IMPORTANT! When you have made changes to the meter's Device Profile, click Load Profile at the bottom of the Device Profile screen to send the new settings to the meter. The meter will reboot and then you can reconnect to it. Note that you can also click Save Profile to save your changes without sending them to the meter.

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https://electroind.com/