# PM-3033 Quick Start

v1.4, October 2025

## Packing List

In addition to this guide, the package includes the following items:

PM-3033/
PM-3033-CPS/
PM-3033-MTCP

Screw Driver * 1

## Technical Support

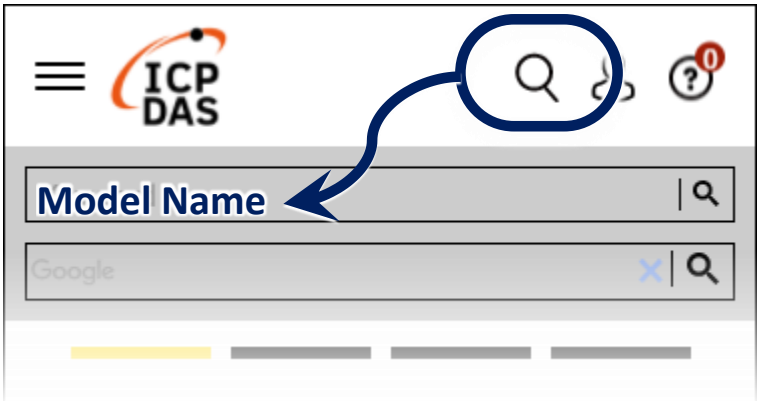
service@icpdas.com

www.icpdas.com

## Resources

How to search for drivers, manuals and spec information on ICP DAS website.

- For Mobile Web




- For Desktop Web

# 1. Caution & Warning

The meter contains hazardous voltages, and should never be disassembled. Failing to follow this practice will result in serious injury or death. Any work on or near energized meters, meter sockets, or other metering equipment could induce a danger of electrical shock. It is strongly recommended that all work should be performed only by qualified industrial electricians and metering specialist. ICP DAS assumes no responsibility if your electrical installer does not follow the appropriate national and local electrical codes.

ICP DAS assumes no liability for any damage resulting from the use of this product. ICP DAS reserves the right to change this manual at any time without notice.

# 2. Installation

## 2.1.

- Please read this operation manual carefully before using.
- Please re-confirm the measure position.
- Reconfirm the RST (ABC) phase sequence of the power system.
- Meter auxiliary power for PM-3033 series is DC +12V ~+48V.

## 2.2.Voltage Input

1. Input Voltage up to 500V.
   For any higher Input Voltage large than 500V, please add the PT (power transformer), and Change PT RATIO setup.
2. Confirm the RST (ABC) phase sequence.

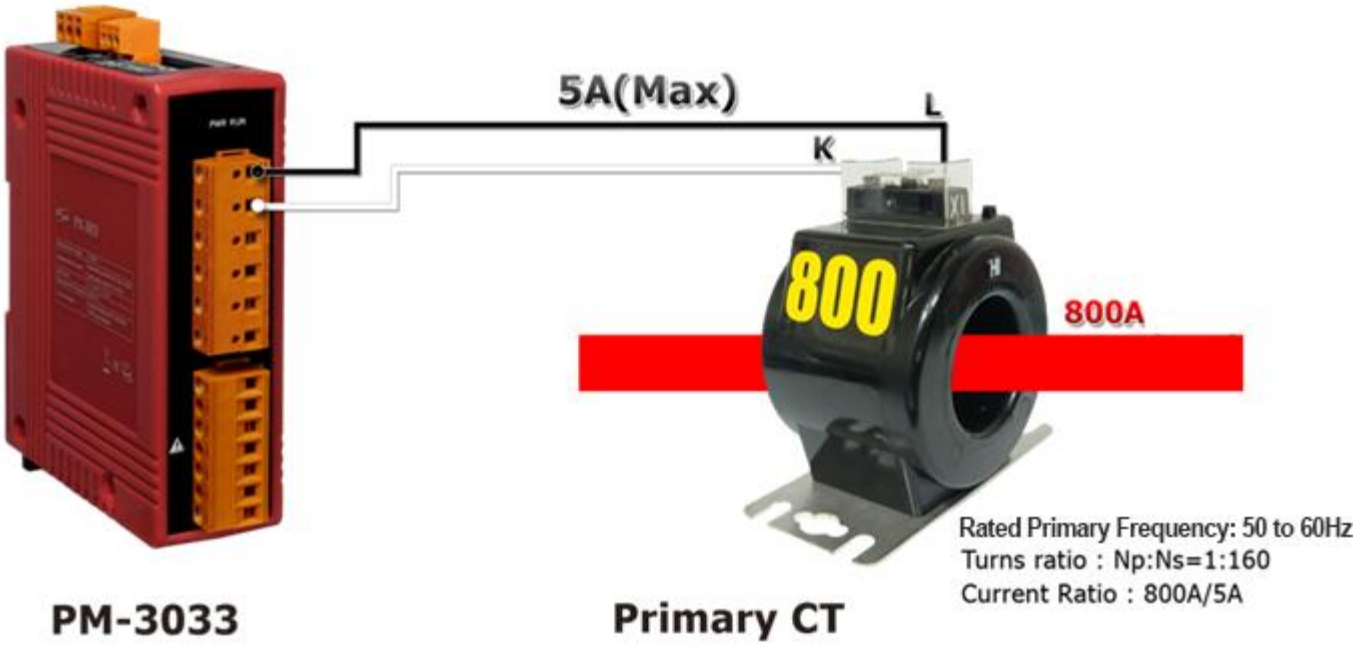
## 2.3. Current Input

1. CT with secondary side output 1A/5A can be connected directly.

2. The current direction must follow K-L marked on CT's.

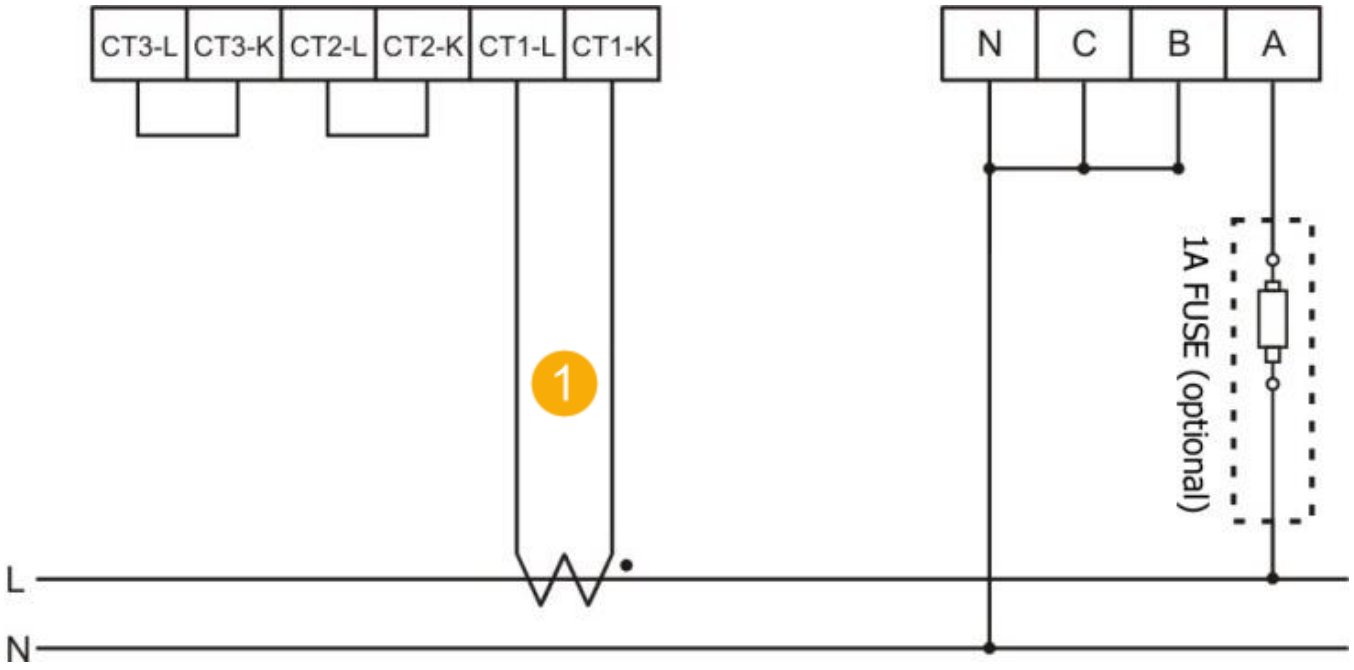
3. Please firstly check the current input terminal.
   Make sure the arrow direction sign on Primary CT's follows current flow direction（K→L）.
   **Note: it must be in the same direction**.
   Connect the voltage input terminal N C B A. for PM-3033 series, in the three phase order as follows on N C B A.

**800A/5A Primary CT Installation and Wiring**

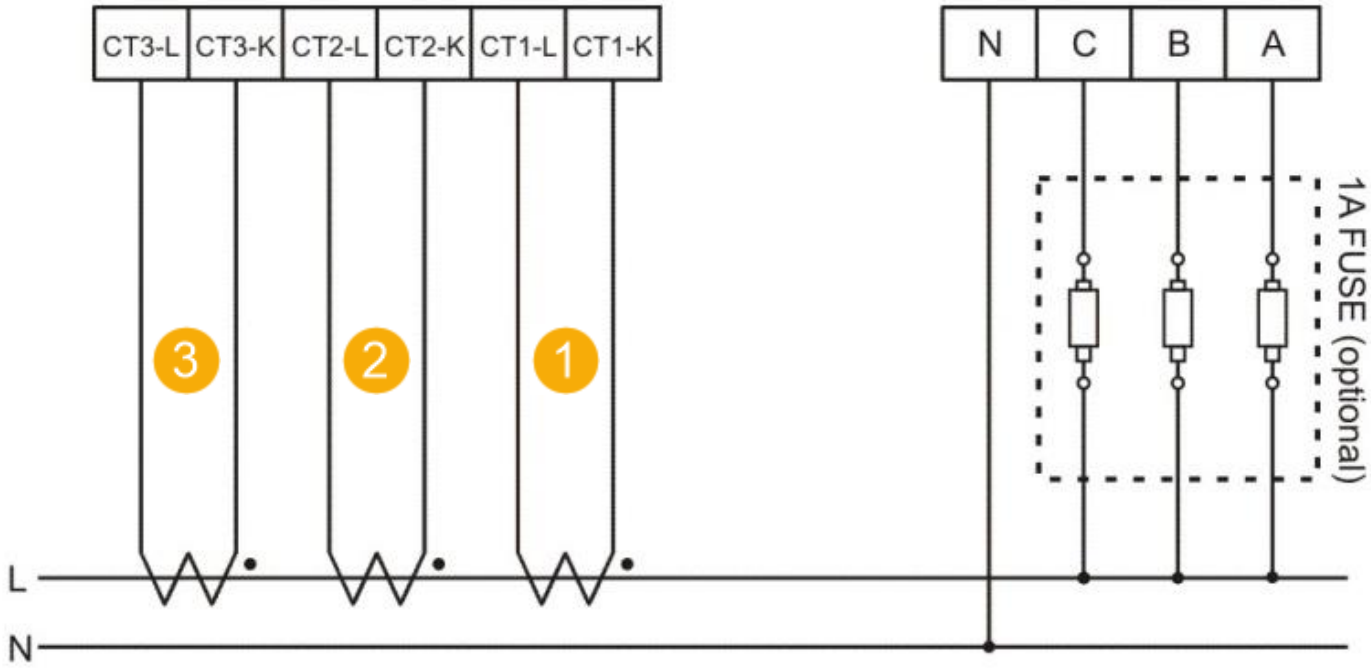


## 2.4.Wiring

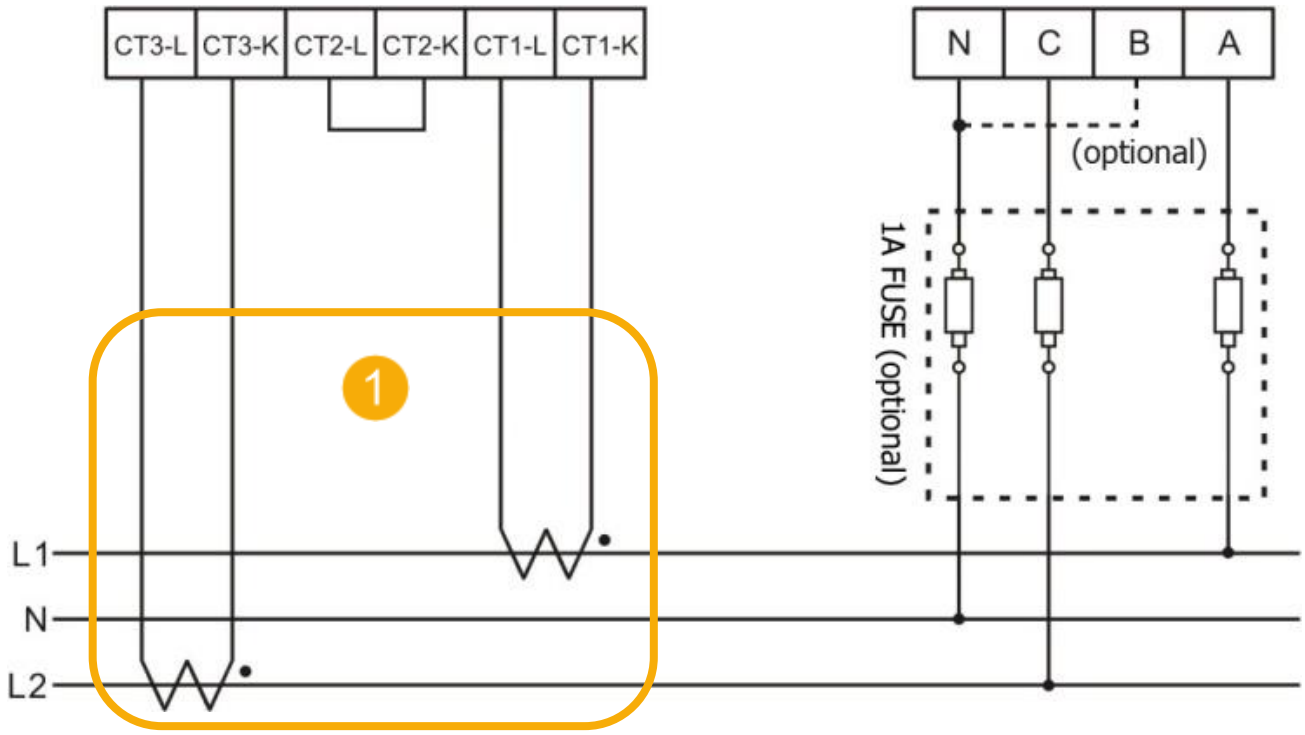
- 1P2W-1CT
  (Single-phase, Single-circuit) (Configuration required via software)



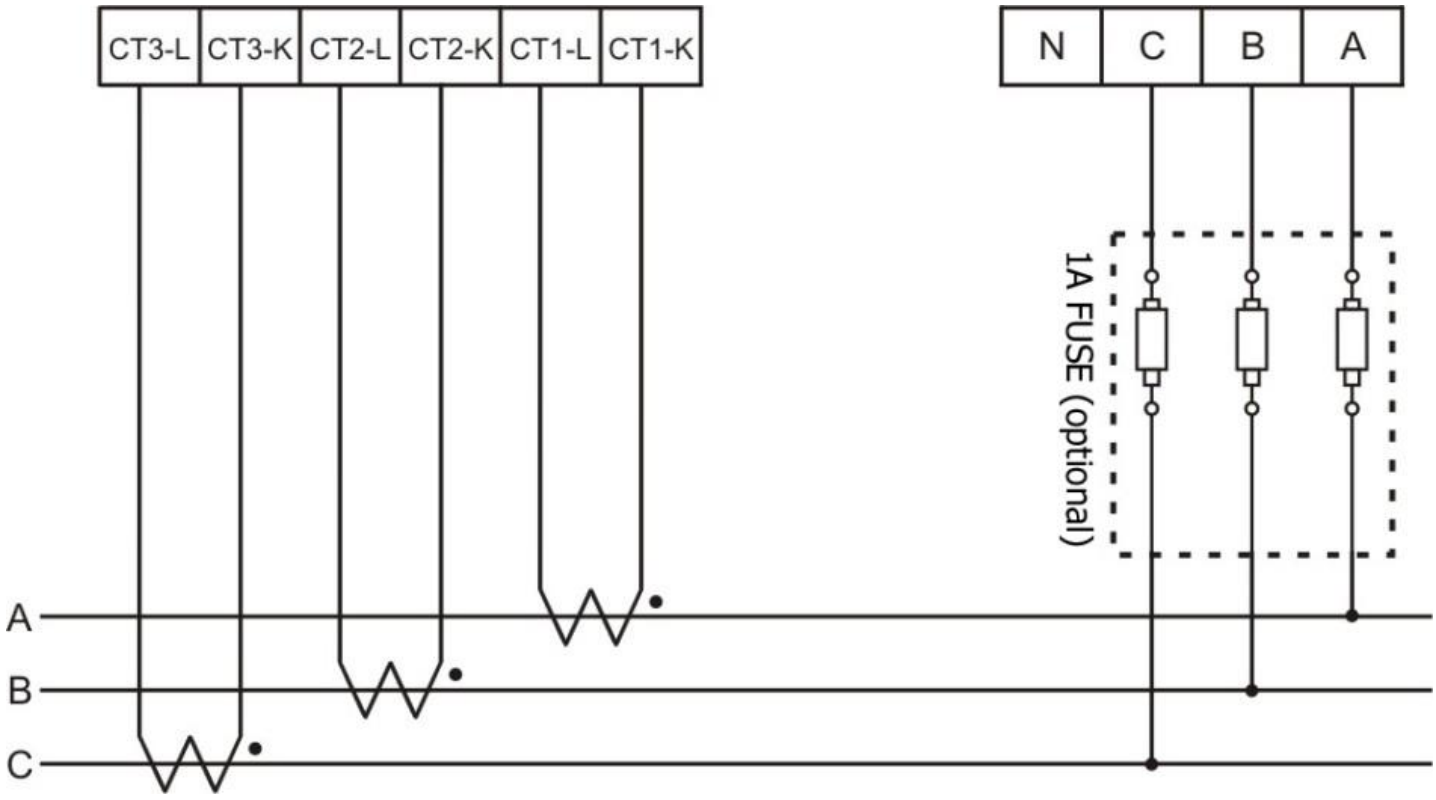

- 1P2W-3CT
  (Single-phase, 3-circuit) (Configuration required via software. Select "1P2W-1CT" as the wiring configuration.)



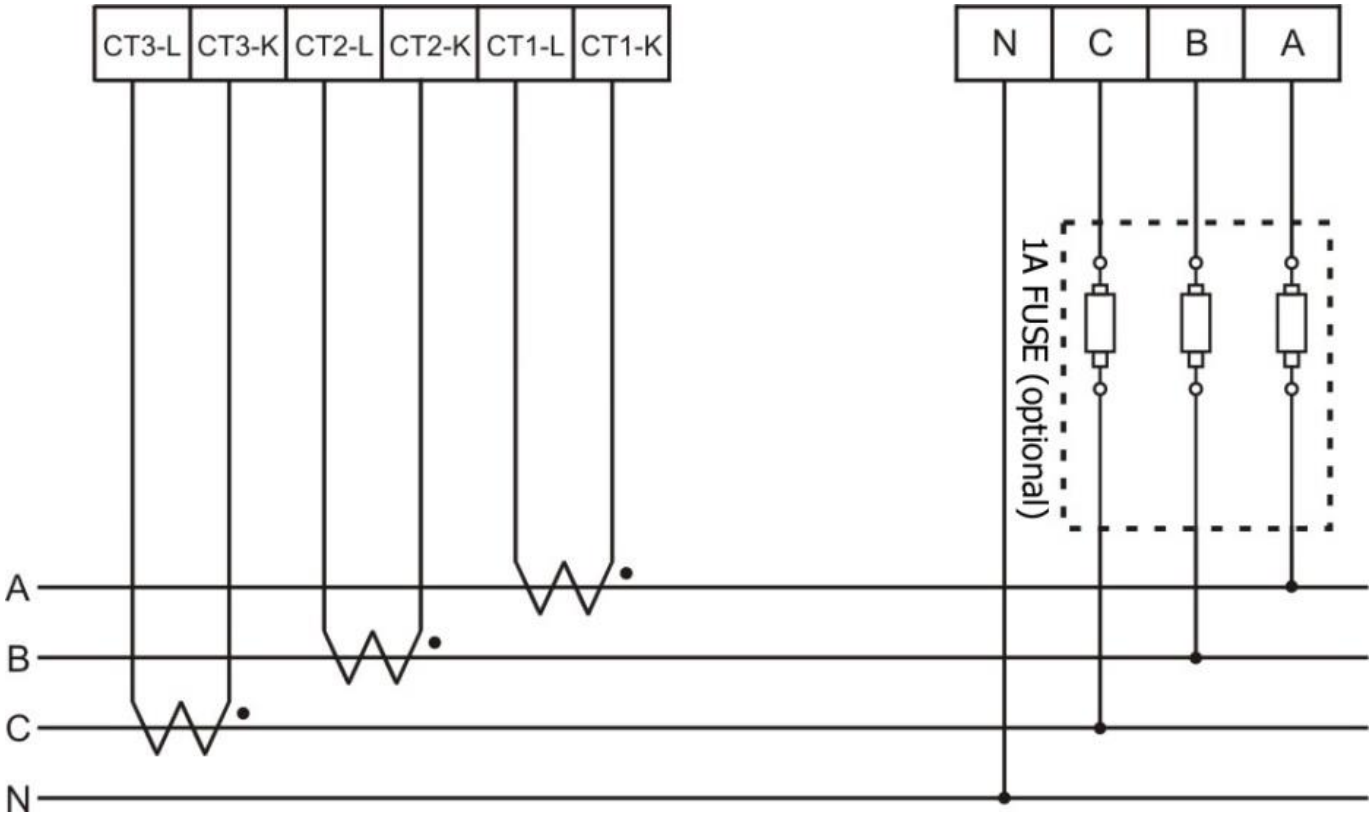
- 1P3W-2CT
  (Single-phase, Single-circuit) (Configuration required via software)



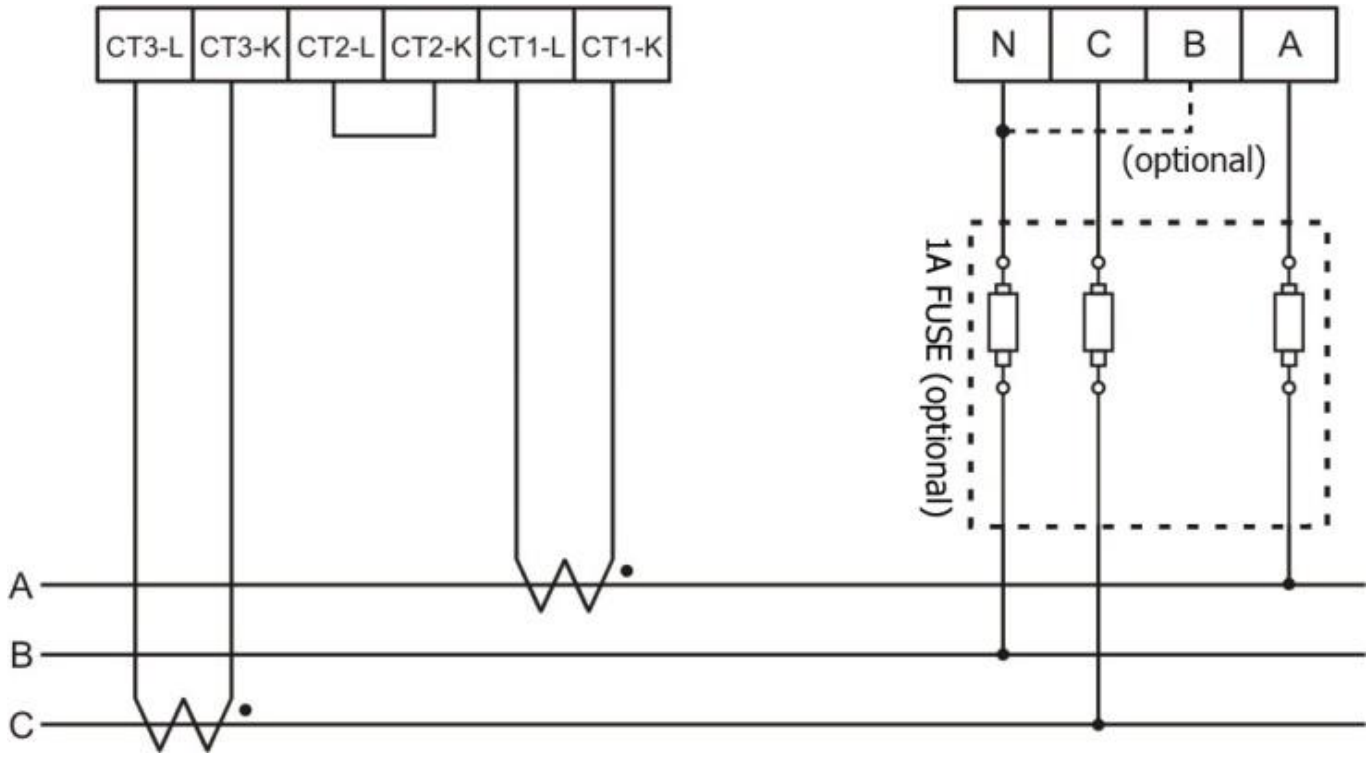

- 3P3W-3CT (Can be configured via software or DIP switch)



- 3P4W-3CT (Can be configured via software or DIP switch)



- 3P3W-2CT (Can be configured via software or DIP switch)



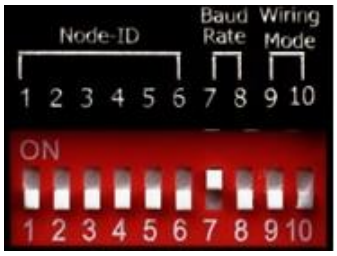

Notes:

1. If phase B is in a floating state, it may pick up induced voltage signals. To avoid this, phase B can be connected to the neutral (N) line.

2. The 3P3W 2CT method is only suitable for **balanced three-phase systems with low harmonic distortion**. For unbalanced loads or systems with significant harmonics, the **3P3W 3CT method** is recommended for accurate measurement.
For detailed information, please refer to the Appendix “Questions and Answers” section of the manual.

# 3. Communication

## 3.1.RS-485 & CAN Setting



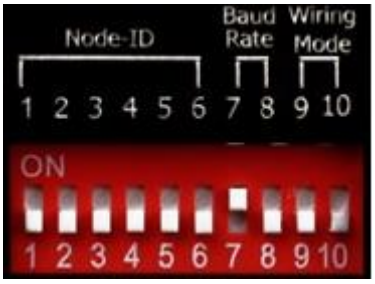

- Default setting for RS-485: **19200, n, 8, 1** ,for CAN: **125K bps**
- DIP switch (SW1-SW6) is used for Modbus address(or CANopen Node ID) setting, default is 1, i.e. all OFF

  **For example:** Modbus address(or CANopen Node ID) is 10，find the table of DIP switch 1-6 is **ON, OFF, OFF, ON, OFF, OFF**
- SW1—SW6 setting
  Setting Modbus-RTU address/CANopen Node ID for communication (1-64)

| Modbus Address | SW 1 | SW 2 | SW 3 | SW 4 | SW 5 | SW 6 |
|---|---|---|---|---|---|---|
| 1 | OFF | OFF | OFF | OFF | OFF | OFF |
| 2 | **ON** | OFF | OFF | OFF | OFF | OFF |
| 3 | OFF | **ON** | OFF | OFF | OFF | OFF |
| 4 | **ON** | **ON** | OFF | OFF | OFF | OFF |
| 5 | OFF | OFF | **ON** | OFF | OFF | OFF |
| 6 | **ON** | OFF | **ON** | OFF | OFF | OFF |
| 7 | OFF | **ON** | **ON** | OFF | OFF | OFF |
| 8 | **ON** | **ON** | **ON** | OFF | OFF | OFF |
| 9 | OFF | OFF | OFF | **ON** | OFF | OFF |
| 10 | **ON** | OFF | OFF | **ON** | OFF | OFF |

- SW7－SW8 For Baud Rate Setting

| RS-485 | CAN | SW 7 | SW8 |
|---|---|---|---|
| **9600 bps** | **125k (Default) bps** | OFF | OFF |
| **19200 (Default) bps** | **250k bps** | **ON** | OFF |
| **38400 bps** | **500k bps** | OFF | **ON** |
| **115200 bps** | **1M bps** | **ON** | **ON** |




Select the different wiring mode
(Please select the Software setting, if 1P2W-1CT or 1P3W-2CT is used)

| Models | PM-3033/ PM-3033-CPS | | PM-3033-MTCP | |
|---|---|---|---|---|
| Wiring | SW 9 | SW 10 | SW 1 | SW 2 |
| Software setting | OFF | OFF | OFF | OFF |
| 3P3W-2CT | **ON** | OFF | **ON** | OFF |
| 3P3W-3CT | OFF | **ON** | OFF | **ON** |
| 3P4W-3CT | **ON** | **ON** | **ON** | **ON** |


**Ethernet default settings**：

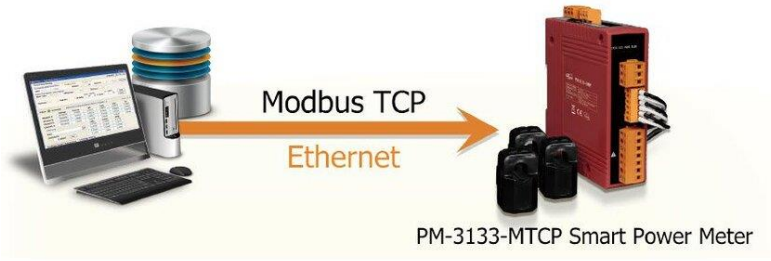
| IP Address | 192.168.255.1 |
|---|---|
| Subnet mask | 255.255.0.0 |
| Gateway | 192.168.0.1 |
| Port | 502 |

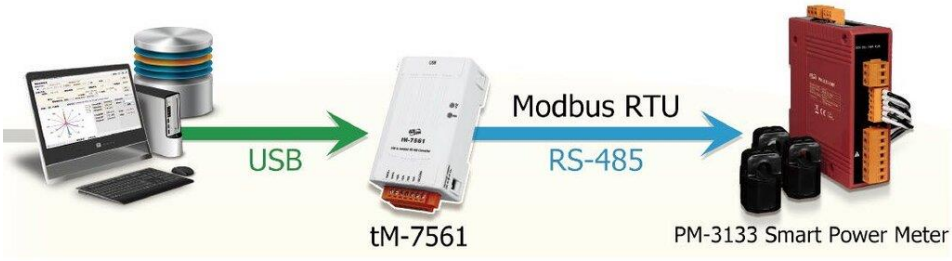
For recovering to default settings, dip Init/Run Switch (SW 4) to Init position for 10 seconds after power on, the settings will be changed as default values. Must dip back to Run position and repower on after settings changed. User also can recover settings to default value by Modbus command.

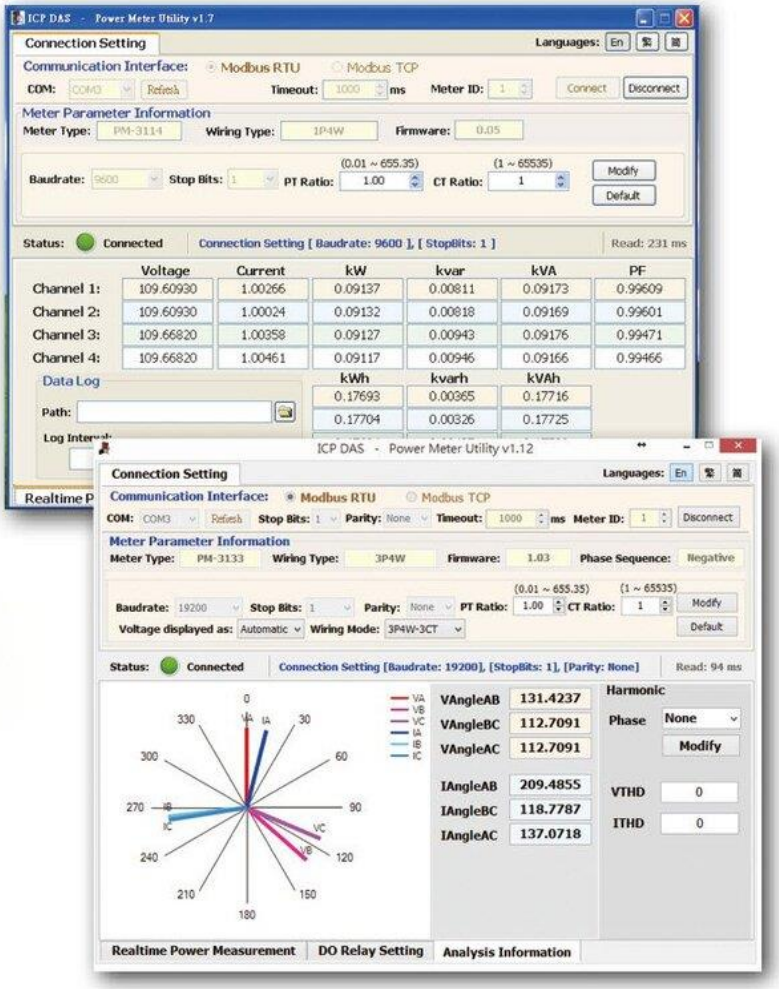
# 4. Power Meter Utility

Power Meter Utility has to be installed on PC and it enables to retrieve and display the power measurement values that measured by power meter via COM Port or Ethernet. The users will be able to read the power measurement values and to perform parameter settings of the meter.

Visit www.icpdas.com/, search [Power Meter Utility], and download the tool.



# 5. CANopen Master Utility

Visit www.icpdas.com/, search [CANopen Master Utility], and download the tool.