
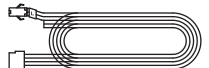
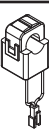



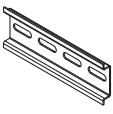




PPM P1E Power meter Installation manual

For safe installation and use, please observe the following notes and refer to the latest version of the installation manual.

- ◆ Please refer to the installation manual for relevant information prior to commencement of work.
- ◆ If you encounter any difficulties during installation, please contact Delta for support.
- ◆ Please take note of all safety relevant notes included in this manual and refer to your local electrical safety guidelines.
- ◆ Accessories included in the package must be used during installation. If you intend to use other components please refer to the information provided in this manual.
- ◆ Must use max rated 32A/2-pole circuit breaker, tripping characteristic Type B.
- ◆ Maximum sensing current of supplied CT sensor is 120A.

Scope of Delivery

1	Power meter (Model no: PPM P1E-000)		1 PC
2	CT wire (2M)		1 PC
3	CT (Current Transformer) (max sensing current 120A)		1 PC
4	AC terminal		3 PCS
5	AC terminal cover		3 PCS
6	RS-485 connector		1 PC
7	DIN Rail		1 PC
8	DIN Rail Screw (PH2)		2 PCS
9	DIN Rail Stopper		2 PCS

Technical Data

Communication	RS-485
Nominal voltage	230VAC
Frequency	50Hz / 60Hz \pm 5%
Self - consumption	2 W
Limiting current	120A
Electrical wire diameter	< 15mm ²
Torque for screw terminal	0.98 Nm
Weight (without current transformer)	145g
Dimensions (H / W / D)	93 mm x 47.3 mm x 66.5 mm
Ambient temperature in operation	- 20°C to 50°C
Ambient temperature during transport / storage	- 20°C to 60°C

* in accordance with IEC 60950

WARNING !



Do not open this product or insert tools due to shock and fire hazard which may cause injury.



When installing this product you must adhere to the following instructions:

- Do not power up the device before installation is complete.
- All circuit breakers must be in the OFF position before commencing installation.



Unsuitable installation locations which will void the product warranty:

- Do not install in direct sunlight.
- Do not expose to high humidity.
- Install in a safe place where it is inaccessible for children.
- Do not install in poorly ventilated area.
- Do not expose to water vapor, oil vapor, smoke, dust, salt, corrosive substances, explosive / flammable GAS, chemicals.
- Do not install above 1000m MSL.
- Do not expose to extreme temperature fluctuation.
- Do not expose to high levels of noise, electrical noise.
- Do not expose to vibration.
- Not suitable for installation in medical equipment, communication equipment, marine, automotive.

DANGER !



Do not work on electrical installation when standing on wet ground.

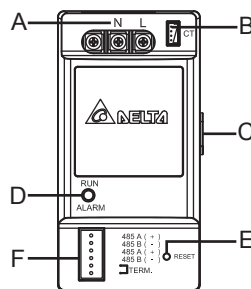


Power meter is a precision electronics.
Please handle with care!



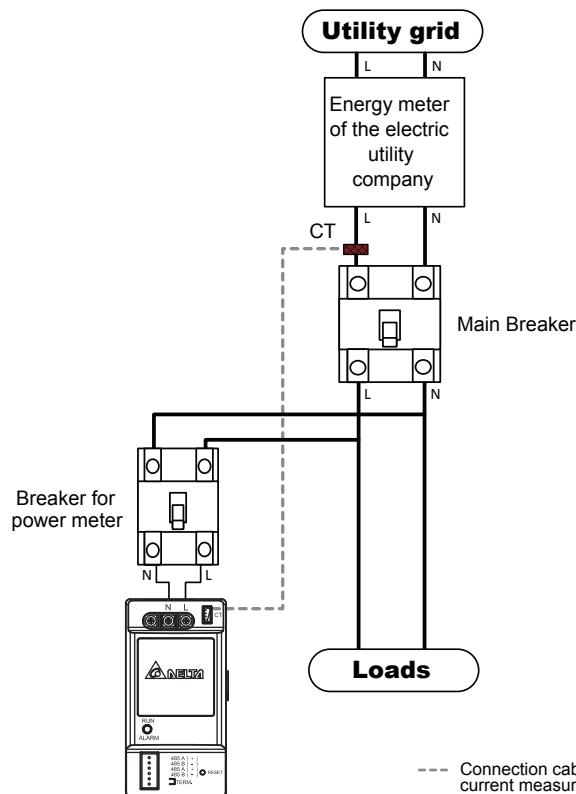
Do not use product if insulation of any wire is broken.

Product Description



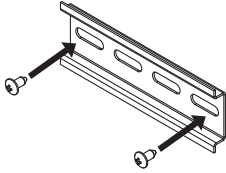
A	Mains voltage connector block
B	CT wire connector
C	Connect with WIFI module
D	Meter status LED
E	WIFI reset button (if connect with WIFI module)
F	RS-485 port & terminal resistor port

Electrical Connection Applications (DANGER)

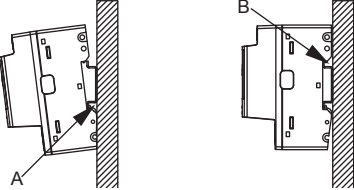


Power meter setup (wall-mount)

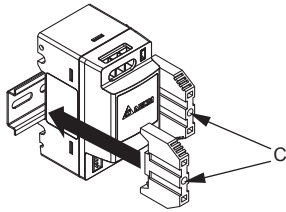
1. Use the supplied DIN rail and mount in distribution cabinet.



2. Take bottom of the meter (A) reach the DIN Rail.
3. Take top of the meter (B) buckle the DIN Rail.

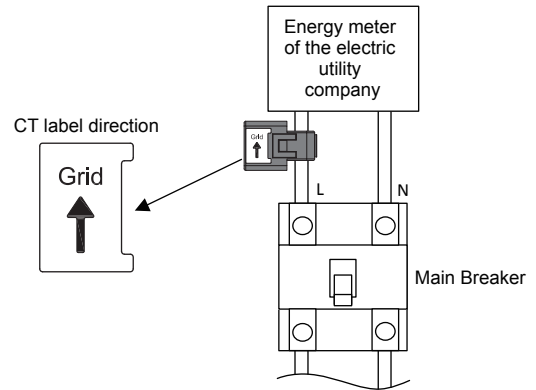


4. Put bolt for DIN Rail into the sides of the meter, as below figure.
5. Lock in the screws that the bolt of DIN Rail (C).

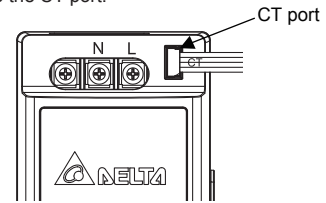


Current Transformer installation (DANGER)

1. The CT can be opened.
2. Take the CT clip on the Line conductor wire.
3. Take note of the direction of CT installation. Arrow symbol means utility grid.

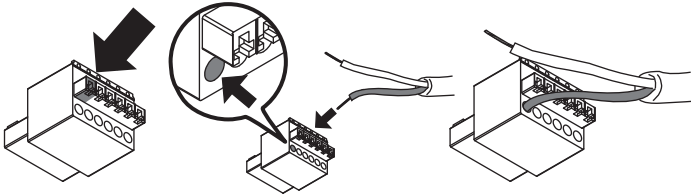


4. Connect the CT wires to the device.
5. Put in the CT wire into the CT port.

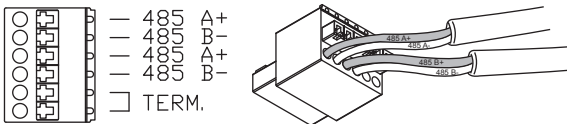


Data communication setup

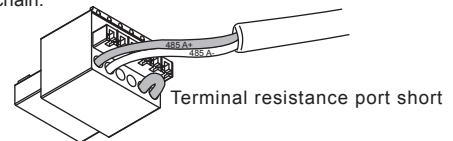
1. Put the signal wires of the monitor (or the inverter) into RS-485 connector. (The wire diameter is AWG20 ~ AWG24)



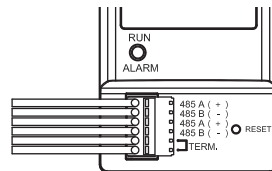
2. According to mark of the meter , put into the signal wires of the monitor. (or the inverter)



3. Add the termination resistor (short the terminals) if this is the last device in the RS485 chain.



4. Connect the RS-485 to the meter port.



5. You can now use the Delta monitor to access and display the data. Please refer to the user manual for more information.

LED Explanation

LED	Status	Explanation
Red	On	Hardware failure
Red	Blink	No communication from other device
Green	On	Normal
Green	Blink	Wait for connection

Troubleshooting

Q: If the meter is connected to ac input power, but the LED for of the meter does not show any output ?

A: Please check ac input power and follow the installation instructions as per 「Electrical Connection Applications」.

Q: If the meter can't connect with Delta monitor ?

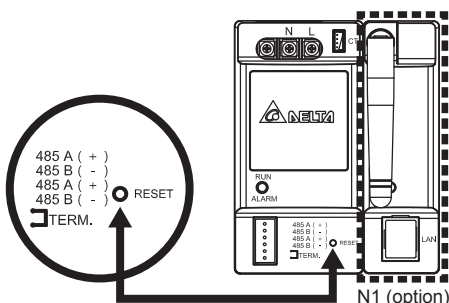
A: Please check RS-485 connection and refer to the setup instruction in section 「Data communication setup」.

Q: If the Delta monitor is connected to the meter but does not show any metering data?

A: Please follow the instructions in section "Current Transformer (CT) setup", verify the max AC current and orientation.

WIFI re-config (if have WIFI module)

1. The WIFI detail config methods refer to the user manual of Delta WIFI module. * If WIFI function is required, please operate with N1 device (option).
2. Use the paperclip (or small object) insert into "RESET" port , and push the button.



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