ePowerMeter 2 PowerMeter User Manual

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ePowerMeter

PowerMeter INSTALLATION

Dynamic Power Management (DPM) is a smart function that allows you to recharge your electric vehicle using only the power available at home, modulating the charging power and avoiding unpleasant blackouts. If you are using other appliances during the charging session, the system can modulate the charging power towards the car, even suspending temporarily the charging session. As soon as the other domestic appliances are switched off, the session will resume at maximum power.

Do not try to install the PowerMeter if you are not qualified as a professional electrician. Such behavior can cause serious danger and harm to you and to the people, things or animals around you.

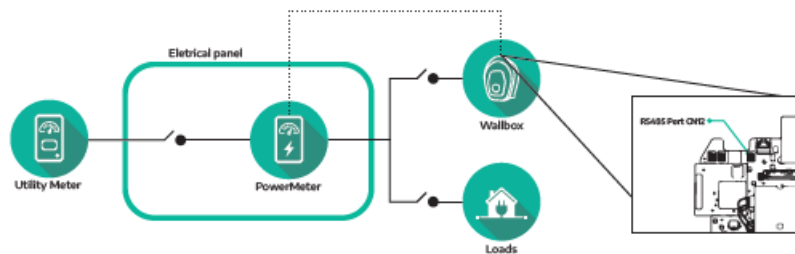The wallbox can work without Dynamic Power Management.

In this case, the installation of a dedicated PowerMeter is not necessary, but avoidance of blackouts is not guaranteed.

Please refer to local regulations and user and wallbox installer manuals on www.esolutions.free2move.com/document-library/ for more information about the installation process.
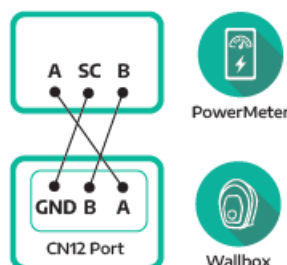
Only PowerMeters provided by Free2move eSolutions S.p.A. are compatible. Installation must be performed by qualified personnel in accordance with local regulations.

During the installation always follow the PowerMeter manual included in the package.

1. Place the PowerMeter provided after the main utility meter and before the split power

2. For the three-phase or single-phase electrical connection, refer to the dedicated installation manual included in the PowerMeter package.

3. Feed the Modbus communication cables through the wallbox box sheath (C). Suggested cable: STP class 5E, 0.5 mm2 section.

4. Use the following order for connecting the communication cables from the PowerMeter to the Wallbox. Starting from left on the wallbox RS485 output port "CN12", connect:

   - GND to SC
   - RS485-B to B
   - RS485-A to A

5. When powering up the PowerMeter for the first time, press and hold the touchscreen button until the display text blinks, then select the SETTING command and press and hold again to enter the menu.

6. Select COMMUNICATION command (COMM on single-phase meter), press and hold to enter the menu.

   Here set:

   - Device address: 001
   - Bits per second (baud): 38400 bit/s

- Parity: Even
- Stop bit: 1
- Connection mode: 3L+N "Arithmetic" (required for three-phase PowerMeter only)

7. Press and hold on ESC to go back. For three-phase PowerMeter only, select INSTALLATION, press and hold to enter the menu.
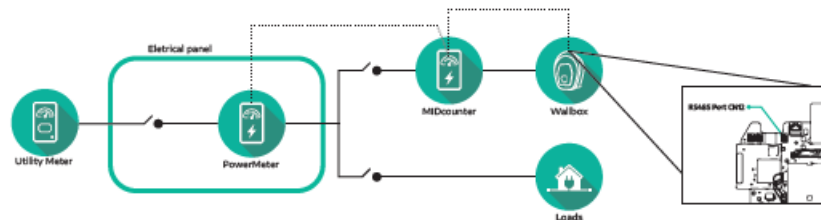
   Set:

   - Connection mode: 3L+N "Arithmetic"

The equipment can only be powered up once this step has been completed. Failure to comply with these instructions can lead to serious damage to persons and property, including death.
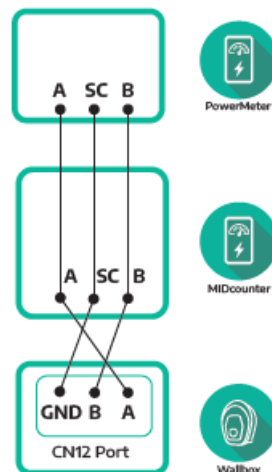
PowerMeter AND MIDcounter INSTALLATION

If the PowerMeter is installed together with the MIDcounter, they must be connected as shown in the diagram below.
Both devices must be connected on the same communication bus Connect the Modbus communication cables as follows:

Now configure both the PowerMeter and MIDcounter. Set the device address as following:

- Device address: 001 (PowerMeter)
- Device address: 002 (MIDcounter)

Then set the following parameters on both devices as described in steps 5. and 6.:
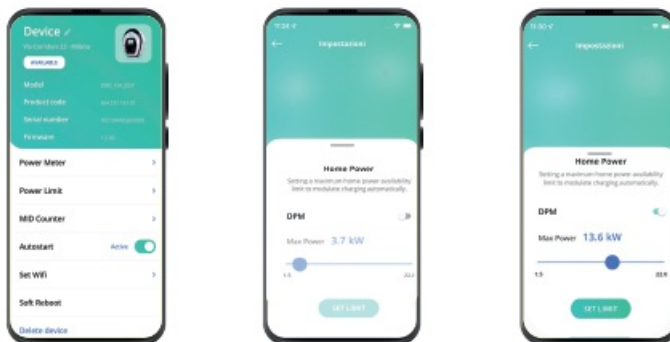
- Bits per second: 38400 bit/s
- Parity: Even

- Stop bit: 1
- Connection mode: 3L+N "Arithmetic" (required for three-phase devices only)

CONFIGURATION

Download eSolutions Charging, a dedicated App available for Android and iOS that allows you to configure your wallbox and monitor the operating parameters.

1. Log in on the App and associate the wallbox to your profile by framing the personal QR code printed on your wallbox, on the back of the external cover.
2. Select the wallbox connected to the PowerMeter and go to settings. Then click on Home Power.

3. Set your Contractual Power value in kW as indicated in your electricity bill by moving the scroll button. This parameter allows the wallbox to understand the power value not to exceed.
4. Click on DPM to enable the Home Power functionality.

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Documents / Resources

ePowerMeter 2 PowerMeter [pdf] User Manual
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