Table of contents

General Information ..... Error! Bookmark not defined.
Hardware **2**
Communication **2**
Workflow ..... Error! Bookmark not defined.
Before Installation ..... Error! Bookmark not defined.
Identifying power source **3**
Identifying target wires **3**
Installation ..... Error! Bookmark not defined.
Placement of device **3**
Mounting the sensor **3**
Connecting to power source **4**
Post Installation ..... Error! Bookmark not defined.
Validating installation data ..... Error! Bookmark not defined.
Troubleshooting ..... Error! Bookmark not defined.
Support ..... Error! Bookmark not defined.

Overview

Multi Clamper is a multi-sensors meter for measuring the electricity consumption of distribution boards. The MultiClamper is an easy to use meter with wireless communication capabilities.

General Information

Hardware

1. EnerGrid – A black pyramid device which acts as a gateway for communication.
2. MultiClamper – A core device in a plastic enclosure with 8 to 12 sensors connected by wires and power input wires, live and neutral.

Communication

The MultiClamper has a wireless communication module which sends data to the EnerGird.
The EnerGrid is either connected physically to a router using an Ethernet cable, or using a GPRS module to communication by cellular internet with the server.

Workflow

1. Locating the distribution board
2. Mapping the target wires
3. Identifying a power source for the device
4. Placing the MultiClamper Box
5. Mounting the sensors on the target wires
6. Connecting the device to the power source
7. Check the data of the MultiClamper in the management application

Safety Precautions

Installation should be done only by a qualified electrician.
Installation must not be performed on a live wire for reasons of safety and random shock hazard. Power supply to the panel must be shut off before and during installation.

The device and sensors must not be installed lying or touching bus bars or any other non-insulated, exposed conductors.

Installation is possible both on external entry/exit conductors before the terminal strip, as well as both ends of the circuit breaker. The least cramped, most accessible location should be chosen for installation.
The sensor should be installed such that the arrow points in the direction of the load.

Before Installation

Identifying power source

The MultiClamper must be powered by a live AC output, while the live wire is connected to the external input pin of the device.

Identifying target wires

Choose the target wires according to the measurement needs of the installation. This may include main and sub circuits.

Installation

Placement of device

Select the most accessible place inside or near by the distribution board. It must be fixed in position to prevent any damage done to it.

Mounting the sensor

Open the sensor, make sure the surfaces of the magnetic ring is clean of dust.
Select the least crowded part of the target wire and mount the sensor in the right direction according to the arrow on the bottom of the sensor which indicates the flow of the electricity through the ring of the sensor. (See diagram below)
Close the sensor.

Connecting to power source

Connect the live and neutral wires of the MultiClamper box to the dedicated output source from the distribution board.

Troubleshooting

The sensor is vibrating

If you can hear a vibrating noise or can feel it vibrating, the sensor is not properly closed. Make sure the closing pin is not broken or loosed.

The sensor is not showing any consumption on the application

If the sensor should show any consumption but instead is showing zero current, the sensor is either defected or it is not properly connected to the MultiClamper input channel. Check the connectivity wire and make sure it is not disconnected.

The MultiClamper is not transmitting any data

If the application does not show any data received by the MultiClamper, it may be caused by a several of reasons.

1. The MultiClamper is not powered
   Make sure the led of the MultiClamper is blinking
2. The MultiClamper is not associated to any gateway

Press the association button on the gateway (it should start blinking faster)
Re-Associate the device by pressing the join button (the one closer to the middle)

3. The wireless reception is poor
    a. Remove any metal obstacles from MultiClamper surrounding
    b. Move either the MultiClamper or the gateway closer to each other