deta.e

MID Energy Meter Single Phase – CT Clamp	EVC7160
CT Clamp 100A	EVC7170

SUPPLEMENTRY INSTRUCTIONS
READ INCONJUCTION WITH THE EV CHARGE POINT INSTRUCTIONS
REFER TO THE EASTRON ENERGY METER INSTRUCTIONS FOR DETAILS OF METER SETTINGS

IMPORTRANT Notes

- Only Easton Energy Meters specified by deta are compatible with the deta.e charge point, item codes EVC7001, EVC7007(LM), EVC7005,
- The energy meter must be protected by a 6A MCB
- These charge points must be installed by Deta trained and registered installers

Description

The deta.e electric vehicle charge point can be configured to change the charging current to the EV depending upon the power available from the supply. In a domestic/ residential supply, this is usually the supply to the property.

This is known as load management and can be achieved using different methods:

1. The maximum charging current can be set within the Autel Commissioning APP.
2. Charging current varies depending upon other loads at that particular time (Dynamic Load Balancing), using an energy meter and CT clamp.

Setting the Maximum Charging Current

The commissioning electrician must determine the maximum demand within the dwelling and the size of the DNO fuse.

Once the spare capacity is determined, this value can be set as the maximum charging current using the Commissioning APP.

The user can then adjust the charging current in the Autel Charge APP up to the maximum set. For example, if the charge point is on a 32A radial circuit and the maximum charging current is set with the Commissioning APP is 20A, the user can only adjust the charging current between 6A and 20A, in 1A increments.

Dynamic Load Balancing

The commissioning electrician must determine the maximum demand within the dwelling and the size of the DNO fuse.

If there is a limited spare capacity, or the capacity is reduced when other loads switch on, e.g. an electric shower, cooker, it is possible to configure the charge point so that the charging current to the EV varies as these loads switch on and off.

To achieve this, the EV charge point must be connected to an energy meter which measures the amount of energy being drawn from the supply.

The energy meter must be located near the incoming supply and have a data communication cable, i.e. RS485 cable, connected between it and the charge point.

In domestic property, the CT clamp must be clamped around the meter tails directly after the customers meter.

The Commissioning APP must be configured for Dynamic Load Balancing.

Installation

The energy meter must be located near the electricity meter and be mounted either in the consumer unit (if there are spare ways) or in a suitable enclosure.

The energy meter requires a 230V supply. The CT clamp/coil must be clamp around the incoming meter tails and wired back to the energy meter – clamp must be fitted with arrow pointing away from the customer electricity meter.

The 2-core data cable must be routed from the energy meter to the charge point.

Terminate the energy meter:

Terminal 1 - CT Coil connection in

Terminal 2 – CT Coil Connection out

Terminal 3 – N

Terminal 4 – L

Terminal 9 – Modbus B Connection

Terminal 10 – Modbus A Connection

Commissioning

Within the Autel Config APP, select:
- Load Balancing
- Adaptive Power Sharing
  Follow the onscreen instructions, including:
- Set as Primary
- Switch on Smart Meter
- Set Number of Phases to Single-phase
- Set Available Power in kilo Watts

Available Power:
  For a DNO 60A fuse, set 12kW
  For a DNO 80A fuse, set 16kW
  For a DNO 100A fuse, set 20kW
  Note: Power Reserve is set at 10% and should not be changed

Voltage Supply for Meter	230V~		Deta Item Code	Eastron Item Code
Maximum Current	100A	Energy Meter	7160	
Data Protocol	Modbus RS485	100A CT Clamp	7170	