

# Easee Equalizer Supported Meters Guide

Includes:

Accuenergy EV390 Eastron SDM 630 MCT-V2 Eastron SDM 72 DM-V2 IME Conto D4 CE4TBDTCL1 Janitza UMG 604 PRO Schneider PM3250 Wago 879-3000 4PU



# Equalizer & Accuenergy EV390

**Product overview** 

This guide consists of main components recommended to install Easee Equalizer (configuration for Eastron SDM 630 MCT V2) on a charging site with one or multiple circuits.

Easee Equalizer: E02-EQP Power Meter: Accuenergy EV390

**Current sensors:** Wibeee STP-24 split core current transformer (CT-clamp) or Rogowski coils

Cable with Modbus adapter\*: E02-QPMBC \*Modbus adapter works only with Easee Equalizer

### Before you start

- Please check the safety instructions on the manufacturer's user guides for all the individual components.
- WiFi network must be enabled for the Equalizer to work properly. Ensure that there is an active WiFi network and note down the login details.







CT clamps — Wiring

----- Connection

## 2 Accuenergy EV390 Configuration

## Before powering up the system, make sure

- V + and V- are connected correctly to power meter 24 V supply AO2+(33), AO2-(34) terminals.
- The load direction is correct on the CT terminals and that S1 / S2 are connected correctly to the power meter.
- The phase sequence is correct on both voltage measurement and current measurement. The CT clamp measuring L1 should be mounted to the same phase as connected to (11, 12), L2 CT clamp to (13, 14) and L3 CT clamp to (15, 16).

## Configuring the current transformer ratio

- Under the data display mode, press <> and V/A keys simultaneously, get into the meter parameter setting mode.
- 2. In the meter parameter setting mode, press key to move cursor. Right move one digit each time.
- 3. Press E key for increasing and press P key for decreasing.
- Press V/A key once for acknowledgment and press V/A key again to go to the next setting page. Press <> and V/A keys simultaneously to exit in any setting mode page.
- 5. Press <> and V/A keys simultaneously, go into the parameter setting mode.

- The fifth screen: CT primary setting page. CT1 value is an integer from 5 to 10000. The unit is Amp. As in Fig Primary current screen, CT1=5A. Use key for moving cursor, E key for increasing and P key for decreasing. Press V/A key, go to the next page.
- 7. The sixth screen: CT secondary setting page. The default value of CT2 is 5A. 1A input is for option. As in Secondary current screen, CT2=5.
- Press <> and V/A key simultaneously, exit setting mode and back to the metering data display page.

## Configuring the distribution system

- 9. Under the data display mode, press <> and V/A keys simultaneously to enter the meter parameter setting mode
  10. Cate the second second
- 10. Go to the seventh screen.
- There are 3 kinds of wiring type in EV/ DV300 meter series, 3 phase 4 wire (0), 3 phase 3 wire direct connection (1), 3 phase 3 wire connection with 3CTs.
- 12. Press <> and E key to change the wiring type. Press V/A key for acknowledgement.
- Press <> and V/A key simultaneously, exit setting mode and back to the metering data display page.

## 3 Setting up

To configure the Equalizer on a site with multiple circuits, you must use the Easee Installer App. Ensure that the Equalizer and the master charger(s) are connected to the same WIFI network. Also check that you have NFC enabled on your mobile phone. You can pair a Equalizer to the site with a charger on the site also.



- Go to Ongoing sites or Update existing site and select the site you want to add an Equalizer to.
- 2. Select Add Equalizer under Site structure.
- **3.** Enter Wi-Fi information (same network to which the chargers are connected).
- Hold the front of the Equalizer to your mobile phone to transmit the Wi-Fidetails. The Equalizer does not need power to receive this.
- 5. Connect the Equalizer to the Modbus adapter.
- Go to Site settings → Equalizer → Meter type and select the meter used in your system.
- 7. For installations with more than one circuit, it is common (and recommended) to set an upper limit value for the entire charging site (eMobility fuse). Go to Site settings → Equalizer → Max allocated current to enter this.

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## Equalizer & Eastron SDM 630 MCT-V2

**Product overview** 

This guide consists of main components recommended to install Easee Equalizer (configuration for Eastron SDM 630 MCT V2) on a charging site with one or multiple circuits.

Easee Equalizer: E02-EQP

**Power Meter:** Eastron SDM 630 MCT-V2 **Power supply:** Mean Well HDR-15-24 DIN-Schienen Netzteil

**Current sensors:** Wibeee STP-24 split core current transformer (CT-clamp) or Rogowski coils

Cable with Modbus adapter\*: E02-QPMBC \*Modbus adapter works only with Easee Equalizer

### Before you start

- Please check the safety instructions on the manufacturer's user guides for all the individual components.
- WiFi network must be enabled for the Equalizer to work properly. Ensure that there is an active WiFi network and note down the login details.







CT clamps — Wiring ----- Connection

## 2 Eastron SDM 630 MCT V2 Configuration

#### Before powering up the system, make sure

- V + and V- are connected correctly to 24
  V power supply.
- The load direction is correct on the CT terminals and that S1 / S2 are connected correctly to the power meter.
- The phase sequence is correct on both voltage measurement and current measurement. The CT clamp measuring L1 should be mounted to the same phase as connected to 4 (power meter), L2
  CT clamp to 3 (power meter) and L3 CT clamp to 2 (power meter).

## Configuring the current transformer ratio

- 1. The unit can be configured to operate with CT ratio between primary current and secondary current. The secondary CT has two options: 1A/5A
- **2.** From the Set-up menu, use M and P buttons to select the CT option.
- 3. Secondary CT setting Press E to enter the CT secondary current selection routine.:5A/1A
- 4. Set CT Ratio value Press E to enter the CT Ratio setting screen. The range is from 0001 to 9999. For example: if the ratio is set to 100, the primary current is equal to the secondary current x100.
- 5. Press U/I to exit the system selection routine and return to the menu.

## Configuring the distribution system

- 6. From the Set-up menu, use M and P buttons to select the System option. The screen will show the currently selected power supply.
- 7. Press E to enter the selection routine. The current selection will flash.
- Use M and P buttons to select the required system option: 1P2(W), 3P3(W), 3P4(W)
- **9.** Press U/I to exit the system selection routine and return to the menu.

## **3** Setting up

To configure the Equalizer on a site with multiple circuits, you must use the Easee Installer App. Ensure that the Equalizer and the master charger(s) are connected to the same WIFI network. Check that you have NFC enabled on your mobile phone. You can also pair an Equalizer to the site by tapping it to the charger on site.



- 1. Go to Ongoing sites or Update existing site and select the site you want to add an Equalizer to.
- 2. Under Site structure, select Add Equalizer.
- **3.** Enter Wi-Fi information (same network to which the chargers are connected).
- 4. Hold the front of the Equalizer to your mobile phone to transmit the Wi-Fidetails. The Equalizer does not need power to receive this.
- 5. Connect the Equalizer to the Modbus adapter.
- Go to Site settings → Equalizer → Meter type and select the meter used in your system.
- 7. For installations with more than one circuit, it is common (and recommended) to set an upper limit value for the entire charging site (eMobility fuse). Enter this at Site settings → Equalizer → Max allocated current.



# Equalizer & Eastron SDM 72 DM-V2

**Product overview** 

This guide consists of main components recommended to install Easee Equalizer (configuration for Eastron SDM 630 MCT V2) on a charging site with one or multiple circuits.

Easee Equalizer: E02-EQP Power Meter: Eastron SDM72DM-V2

**Power supply:** Mean Well HDR-15-24 DIN-Schienen Netzteil

Cable with Modbus adapter\*: E02-QPMBC \*Modbus adapter works only with Easee Equalizer

### Before you start

- Please check the safety instructions on the manufacturer's user guides for all the individual components.
- WiFi network must be enabled for the Equalizer to work properly. Ensure that there is an active WiFi network and note down the login details.





WARNING! This product shall only be installed, repaired or serviced by an authorised electrician. All applicable local, regional and national regulations for electrical installations must be respected.

**WARNING!** Turn off the power before you begin the installation. Use extreme caution and follow instructions carefully.

- 1. Mount the power meter and the 24 V power supply on a DIN rail in the fuse cabinet.
- 2. Connect the terminals for 230 V operating current on the 24 V power supply. Using a separate fuse of 10 A is recommended.
- 3. Connect the power supply 24 V terminals to terminals V+ and V- on the Modbus adapter.
- 4. Connect phase- and neutral conductors to the power meter voltage measurement terminals.
- 5. Connect power meter terminals A, B and G to A, B and G on the Modbus adapter.



— Wiring ----- Connection



## Before powering up the system, make sure

- V + and V- are connected correctly to 24
  V power supply.
- The phase sequence is correct on voltage measurement.

## Configuring the distribution system

- 1. When the meter powered on, the meter will initialize and do self-checking.
- 2. To get into Set-up Mode, press the Enter button for 3 seconds.
- 3. The meter will automatically detect 3 phase 4 wire or 2 phase 3 wire according to connection.
- 4. Please check the system type and all other configurations in the meter to make sure you have connected the correct phases to the power meter.
- **5.** Keep pressing the double arrow button to exit the set-up mode.

3 Setting up

To configure the Equalizer on a site with multiple circuits, you must use the Easee Installer App. Ensure that the Equalizer and the master charger(s) are connected to the same WIFI network. Check that you have NFC enabled on your mobile phone. You can also pair an Equalizer to the site by tapping it to the charger on site.



- 1. Go to Ongoing sites or Update existing site and select the site you want to add an Equalizer to.
- 2. Under Site structure, select Add Equalizer.
- **3.** Enter Wi-Fi information (same network to which the chargers are connected).
- 4. Hold the front of the Equalizer to your mobile phone to transmit the Wi-Fidetails. The Equalizer does not need power to receive this.
- 5. Connect the Equalizer to the Modbus adapter.
- Go to Site settings → Equalizer → Meter type and select the meter used in your system.
- 7. For installations with more than one circuit, it is common (and recommended) to set an upper limit value for the entire charging site (eMobility fuse). Enter this at Site settings → Equalizer → Max allocated current.



# Equalizer & IME Conto D4 E4TBDTCL1

**Product overview** 

This guide consists of main components recommended to install Easee Equalizer (configuration for Eastron SDM 630 MCT V2) on a charging site with one or multiple circuits.

Easee Equalizer: E02-EQP

**Power Meter:** IME Conto D4 CE4TBDTCL1 **Power supply:** Mean Well HDR-15-24 DIN-Schienen Netzteil

**Current sensors:** Wibeee STP-24 split core current transformer (CT-clamp) or Rogowski coils

Cable with Modbus adapter\*: E02-QPMBC \*Modbus adapter works only with Easee Equalizer

### Before you start

- Please check the safety instructions on the manufacturer's user guides for all the individual components.
- WiFi network must be enabled for the Equalizer to work properly. Ensure that there is an active WiFi network and note down the login details.





WARNING! This product shall only be installed, repaired or serviced by an authorised electrician. All applicable local, regional and national regulations for electrical installations must be respected.

**WARNING!** Turn off the power before you begin the installation. Use extreme caution and follow instructions carefully.

- 1. Mount the power meter and the 24 V power supply on a DIN rail in the fuse cabinet.
- 2. Connect the terminals for 230 V operating current on the 24 V power supply. Using a separate fuse of 10 A is recommended.

- 3. Connect the power supply 24 V terminals to terminals V+ and V- on the Modbus adapter.
- 4. Connect phase and neutral conductors to the power meter voltage measurement terminals.
- 5. Connect the wires from the CTclamps to the power meter current measurement terminals.
- 6. Attach one CT-clamp around each conductor either in front of or behind the main fuse in the fuse cabinet. Ensure that the sensors are connected correctly, the marked arrows on the sensors must follow the current direction from the intake to the site.
- 7. Connect power meter terminals +, and SG to A, B and G on the Modbus adapter respectively.



CT clamps —



## Before powering up the system, make sure

- V + and V- are connected correctly to 24
  V power supply.
- The load direction is correct on the CT terminals and that S1 / S2 are connected correctly to the power meter.
- The phase sequence is correct on both voltage measurement and current measurement. The CT clamp measuring L1 should be mounted to the same phase as connected to 2 (power meter), L2 CT clamp to 5 (power meter) and L3 CT clamp to 8 (power meter).

## Configuring the current transformer ratio and the distribution system

- 1. Keeping the Key SET pressed for 3 seconds to access the Setup Parameters display.
- 2. Inside the Setup Parameters display you can set the distribution system type
- **3.** You can also set the CT ratio according to the CT type.

## **3** Setting up

To configure the Equalizer on a site with multiple circuits, you must use the Easee Installer App. Ensure that the Equalizer and the master charger(s) are connected to the same WIFI network. Check that you have NFC enabled on your mobile phone. You can also pair an Equalizer to the site by tapping it to the charger on site.



- 1. Go to Ongoing sites or Update existing site and select the site you want to add an Equalizer to.
- 2. Under Site structure, select Add Equalizer.
- **3.** Enter Wi-Fi information (same network to which the chargers are connected).
- 4. Hold the front of the Equalizer to your mobile phone to transmit the Wi-Fidetails. The Equalizer does not need power to receive this.
- 5. Connect the Equalizer to the Modbus adapter.
- Go to Site settings → Equalizer → Meter type and select the meter used in your system.
- 7. For installations with more than one circuit, it is common (and recommended) to set an upper limit value for the entire charging site (eMobility fuse). Enter this at Site settings → Equalizer → Max allocated current.



# Equalizer & Janitza UMG 604 PRO

**Product overview** 

This guide consists of main components recommended to install Easee Equalizer (configuration for Eastron SDM 630 MCT V2) on a charging site with one or multiple circuits.

Easee Equalizer: E02-EQP

**Power Meter:** Janitza 604 PRO **Power supply:** Mean Well HDR-15-24 DIN-Schienen Netzteil

**Current sensors:** Wibeee STP-24 split core current transformer (CT-clamp) or Rogowski coils

Cable with Modbus adapter\*: E02-QPMBC \*Modbus adapter works only with Easee Equalizer

### Before you start

- Please check the safety instructions on the manufacturer's user guides for all the individual components.
- WiFi network must be enabled for the Equalizer to work properly. Ensure that there is an active WiFi network and note down the login details.





WARNING! This product shall only be installed, repaired or serviced by an authorised electrician. All applicable local, regional and national regulations for electrical installations must be respected.

**WARNING!** Turn off the power before you begin the installation. Use extreme caution and follow instructions carefully.

- 1. Mount the power meter and the 24 V power supply on a DIN rail in the fuse cabinet.
- Connect the terminals for 230 V operating current on the power meter and the 24 V power supply. Using a separate fuse of 10 A is recommended.

- 3. Connect the power supply 24 V terminals to terminals V+ and V- on the Modbus adapter.
- Connect phase and neutral conductors (PE if IT) to the power meter voltage measurement terminals.
- 5. Connect the wires from the CTclamps to the power meter current measurement terminals.
- 6. Attach one CT-clamp around each conductor either in front of or behind the main fuse in the fuse cabinet. Ensure that the sensors are connected correctly, the marked arrows on the sensors must follow the current direction from the intake to the site.
- 7. Connect power meter terminals 23, 22 and 26 to A, B and G on the Modbus adapter respectively.



CT clamps

## 2 Janitza UMG 604 PRO Configuration

### Before powering up the system, make sure

- V + and V- are connected correctly to 24
  V power supply.
- The load direction is correct on the CT terminals and that S1 / S2 are connected correctly to the power meter.
- The phase sequence is correct on both voltage measurement and current measurement. The CT clamp measuring L1 should be mounted to the same phase as connected to 9, L2 CT clamp to 10 and L3 CT clamp to 11.

## Configuring the current transformer ratio

- The UMG 604 is designed for the connection of current transformers with secondary currents of ../1A and ../5A. The display, keys 1 and 2, and the Service key make it easier to install and start up the metre without a PC. Important parameters such as current transformers and and the device addresses are included in the parameter list and can be directly programmed at the device.
- If you simultaneously press keys 1 and 2 for 1 second, programming mode opens via a password query. If a display password has not been programmed, the first programming menu opens directly.
- **3.** Program the current transformers with the same current transformer ratios in addresses 000 and 001.

## Configuring the distribution system

- 4. The UMG 604 recognizes two connection options for the voltage measurement.
- **5.** Connection option 0:
- Direct measurement of the voltage in 3-phase 4-conductor systems.
   Massurement via 2 voltage transformed
- Measurement via 3 voltage transformers in 3-phase 4-conductor systems.
- Measurement in one-phase-3 conductor systems.
- 6. Connection option 1:
- Direct measurement of the voltage in three-phase 3-conductor systems.
- Measurement via 2 voltage transformers (Aron circuit) in three-phase 3-conductor systems.

## **3** Setting up

To configure the Equalizer on a site with multiple circuits, you must use the Easee Installer App. Ensure that the Equalizer and the master charger(s) are connected to the same WIFI network. Check that you have NFC enabled on your mobile phone. You can also pair an Equalizer to the site by tapping it to the charger on site.



- 1. Go to Ongoing sites or Update existing site and select the site you want to add an Equalizer to.
- 2. Under Site structure, select Add Equalizer.
- **3.** Enter Wi-Fi information (same network to which the chargers are connected).
- Hold the front of the Equalizer to your mobile phone to transmit the Wi-Fidetails. The Equalizer does not need power to receive this.
- 5. Connect the Equalizer to the Modbus adapter.
- Go to Site settings → Equalizer → Meter type and select the meter used in your system.
- 7. For installations with more than one circuit, it is common (and recommended) to set an upper limit value for the entire charging site (eMobility fuse). Enter this at Site settings → Equalizer → Max allocated current.



## Equalizer & Schneider PM3250

**Product overview** 

This guide consists of main components recommended to install Easee Equalizer (configuration for Eastron SDM 630 MCT V2) on a charging site with one or multiple circuits.

Easee Equalizer: E02-EQP

**Power Meter:** Schneider PM 3250 **Power supply:** Mean Well HDR-15-24 DIN-Schienen Netzteil

**Current sensors:** Wibeee STP-24 split core current transformer (CT-clamp) or Rogowski coils

Cable with Modbus adapter\*: E02-QPMBC \*Modbus adapter works only with Easee Equalizer

### Before you start

- Please check the safety instructions on the manufacturer's user guides for all the individual components.
- WiFi network must be enabled for the Equalizer to work properly. Ensure that there is an active WiFi network and note down the login details.







CT clamps — Wiring ----- Connection

## 2 Schneider PM3250 Configuration

## Before powering up the system, make sure

- V+ and V- are connected correctly to 24
  V power supply.
- The load direction is correct on the CT terminals and that S1 / S2 are connected correctly to the power meter.
- The phase sequence is correct on both voltage measurement and current measurement. The CT clamp measuring Il should be mounted to the same phase as connected to V1 (power meter), I2 CT clamp to V2 (power meter) and L3 CT clamp to V3 (power meter).

## Configuring the current transformer ratio and the distribution system

- 1. To enter configuration mode press OK and ESC at the same time for two seconds.
- 2. Go to Setup Options and select Access Counter.
- 3. Use the [up arrow] and [down arrow] buttons to scroll through and select the Access Counter value.
- 4. There are two methods for modifying a parameter, depending on the type of parameter:
- Selecting a value in a list (for example, selecting 1PH2W L-N from a list of available power systems), or
- Modifying a numerical value, digit by digit (for example, entering a value for CT primary and secondary).
- So following above steps you can configure the wiring type for meter and change the CT primary and secondary values by modifying parameter numerical values.

## 3 Setting up

To configure the Equalizer on a site with multiple circuits, you must use the Easee Installer App. Ensure that the Equalizer and the master charger(s) are connected to the same WIFI network. Check that you have NFC enabled on your mobile phone. You can also pair an Equalizer to the site by tapping it to the charger on site.



- 1. Go to Ongoing sites or Update existing site and select the site you want to add an Equalizer to.
- 2. Under Site structure, select Add Equalizer.
- **3.** Enter Wi-Fi information (same network to which the chargers are connected).
- Hold the front of the Equalizer to your mobile phone to transmit the Wi-Fidetails. The Equalizer does not need power to receive this.
- 5. Connect the Equalizer to the Modbus adapter.
- Go to Site settings → Equalizer → Meter type and select the meter used in your system.
- 7. For installations with more than one circuit, it is common (and recommended) to set an upper limit value for the entire charging site (eMobility fuse). Enter this at Site settings → Equalizer → Max allocated current.



# Equalizer & Wago 879-3000 4PU

**Product overview** 

This guide consists of main components recommended to install Easee Equalizer (configuration for Wago 879-3000 4PU) on a charging site with one or multiple circuits.

Easee Equalizer: E02-EQP Power Meter: Wago 879-3000 4PU MID

**Power supply:** Mean Well HDR-15-24 DIN-Schienen Netzteil

Cable with Modbus adapter\*: E02-QPMBC \*Modbus adapter works only with Easee Equalizer

### Before you start

- Please check the safety instructions on the manufacturer's user guides for all the individual components.
- WiFi network must be enabled for the Equalizer to work properly. Ensure that there is an active WiFi network and note down the login details.





WARNING! This product shall only be installed, repaired or serviced by an authorised electrician. All applicable local, regional and national regulations for electrical installations must be respected.

**WARNING!** Turn off the power before you begin the installation. Use extreme caution and follow instructions carefully.

- 1. Mount the power meter and the 24 V power supply on a DIN rail in the fuse cabinet.
- 2. Connect the terminals for 230 V operating current on the 24 V power supply. Using a separate fuse of 10 A is recommended.
- 3. Connect the power supply 24 V terminals to terminals V+ and V- on the Modbus adapter.
- 4. Connect phase and neutral conductors to the power meter voltage measurement terminals.
- 5. Connect power meter terminals A(7), B(8) to A, B on the Modbus adapter.





## Before powering up the system, make sure

- V + and V- are connected correctly to 24
  V power supply.
- The phase sequence is correct on voltage measurement.

## Configuring the distribution system

- 1. On the front side of the meter are three pressure-sensitive buttons, which are marked with a green line in the right corner on the bottom. To enter the settings mode press and hold the middle button for for at least 3 seconds.
- 2. When the arrows point at the Bluetooth symbol, press the middle button to activate Bluetooth. You will also see the data and access meter from your phone.
- 3. The default tariff is 1. The tariff can be set to T2, T3 and T4. Tariff 1 and 2 are always displayed in part 1 and 2 of the meters. Tariff 3 and 4 kWh values will be added to the automatic scroll in part 2 of the display.

3 Setting up

To configure the Equalizer on a site with multiple circuits, you must use the Easee Installer App. Ensure that the Equalizer and the master charger(s) are connected to the same WIFI network. Check that you have NFC enabled on your mobile phone. You can also pair an Equalizer to the site by tapping it to the charger on site.



- 1. Go to Ongoing sites or Update existing site and select the site you want to add an Equalizer to.
- 2. Under Site structure, select Add Equalizer.
- **3.** Enter Wi-Fi information (same network to which the chargers are connected).
- Hold the front of the Equalizer to your mobile phone to transmit the Wi-Fidetails. The Equalizer does not need power to receive this.
- 5. Connect the Equalizer to the Modbus adapter.
- Go to Site settings → Equalizer → Meter type and select the meter used in your system.
- 7. For installations with more than one circuit, it is common (and recommended) to set an upper limit value for the entire charging site (eMobility fuse). Enter this at Site settings → Equalizer → Max allocated current.

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