Manual: QA Wallbox Meter Connect

Connection of the wallbox energy meter to the energy management of the house and inverter control while the vehicle is charging.

Introduction

QA Wallbox Meter Connect is intended for wallboxes that cannot be controlled, but whose consumption is measured by an energy meter connected to the controller. From the selected energy meter and power meter, the application detects whether the vehicle is charging and displays the charging power and energy.

The main function is inverter control while the vehicle is charging. The application can disable discharging of the home battery so that the vehicle is not charged from the battery, or allow discharging only within the set range of the battery state of charge (SOC). The power missing for charging is then taken from the grid.

The application does not communicate with the wallbox: it does not switch vehicle charging on or off and does not control its power.

For clear visualisation and access to measurement history and graphs, we recommend connecting to Mervis SCADA.

Previous and follow-up applications

Previous applications

- **Wallbox energy meter** — a device in the controller that measures the energy and power of the wallbox (e.g. an energy meter from an energy meter QA application). The application reads data from it; it is selected on the **Installation** card.
- **Inverter QA** — with the **Inverter Control** option switched on, the application controls discharging of the home battery.

Follow-up applications

- **QA Consumption Control** — uses the vehicle charging data in the energy management of the house.

Installation and initial setup of the QA

Installation

Purchase the application in the Smart Home and Energy e-shop (https://eshop.smarthomeenergy.cz). After the purchase you receive an e-mail with a link to the activation form, in which you choose one of the two installation methods:

- **Installation via the SHE Installation Application (recommended)** — the application is installed into the unit automatically and allows future automatic updates. Requires the "superuser" credentials for the unit. See the separate "Installation Application" manual for details.
- **Standalone installation file (*.fqax)** — install the file manually into the unit according to the unit manufacturer's instructions (logged in as "superuser"). This option does not allow automatic updates.

You can try out the functions of the application before purchase in the trial version — the TRIAL unlocks full functionality for 2 days.

After a successful installation, the following appear on the unit desktop:

- a set of application cards (tiles): the main card (e.g. **Wallbox EV Charger**), **Options Settings** and **Installation**,
- tiles with the charging energy values (**Period** and **Today**, in kWh).

Operating prerequisites

- **Controller:** Fibaro HC3 or HC3L (or Yubii Home / Yubii Home Pro).
- **Wallbox energy meter** connected to the controller — a device measuring energy (kWh) and power (W).
- To control discharging of the home battery: an **inverter QA** installed in the unit.

Opening the application control card

In a web browser, move the cursor over the application tile (e.g. **Wallbox EV Charger**, **Options Settings**) and click the **eye** icon in its top-right corner. The application card opens.

> ⚠️ **Warning: Not all cards and tiles are displayed to all users. Each user selects which cards and tiles are displayed on the Display Settings card (sheViewControl application) – levels SHORT, ADVANCED and ADMIN. If you cannot see a described card, check the settings on this card.**

User settings

Initial setup procedure

1. **Installation** card — select the energy meter and power meter of the wallbox, switch on inverter control if required, and save the settings with the **SAVE** button.

2. **Options Settings** card — set discharging of the home battery and charging from the grid while the vehicle is charging, and the notifications.

3. **Main application card** — monitor the charging status and energy.

Installation card

Used for the initial setup of the application.

> ⚠ **Warning: When saving the settings, always wait until the Run status changes to Running. Do not use the SAVE button earlier.**

Inverter Control Settings

- **Inverter Control** — when this option is switched on, the application controls discharging of the home battery while the vehicle is charging, according to the settings on the **Options Settings** card. Switch it on if you want to influence discharging of the home battery; it requires an **inverter QA**.

Meter selection

- **Electro Meter** — the device from which the application reads the charging energy (kWh).
- **Power Meter** — the device from which the application reads the charging power (W).

Select the meter measuring the consumption of the wallbox itself, not of the whole house.

The **Run status** line shows the running state of the application. Save the settings with the **SAVE** button.

The application version is shown at the bottom of the card (e.g. sheWallboxMeterConnect 1.02.01).

Options Settings card

On this card you set inverter control while the vehicle is charging and the notifications.

- All SOC limits on this card refer to the home battery connected to the inverter, not to the vehicle battery.
- The status line (Active / Inactive) shows whether the function is currently being applied.
- A highlighted button means that the option is switched on.

Inverter Control Settings

- **Inverter Battery** — current SOC and energy of the inverter home battery (e.g. 40 % | 4.6 kWh).

Battery discharging settings

- **Battery discharging** — function status (Active / Inactive).
- **Discharge Limits Battery Inverter** — SOC hysteresis of the home battery: when the SOC drops to **Min**, battery discharging stops; after charging to **Max**, it is allowed again. Change **Min** with the left pair of **-** / **+** buttons and **Max** with the right pair.
- **Excess PV Energy Over Load** — predicted surplus of photovoltaic (PV) production over the house load (kWh).
- **Only when predicting overproduction** — use this button to limit allowing battery discharging to periods of predicted PV production surplus.

- **Disable Discharging** (allows discharging of the battery) — use this button to allow discharging of the home battery while the vehicle is charging.

Charging from Grid settings

- **Charging from Grid** — function status (Active / Inactive).
- **Permanently from Grid** — use this button to allow taking the power for charging the vehicle from the grid.

Notification settings

Select the events you want to be informed about: **START** (charging started), **STOP** (charging finished), **INTERR** (charging interrupted), **ERROR** (error state).

Choose how the notifications are delivered: **E-mail**, **Push** or **TTS** (voice notification).

For **Notification period**, set the notification frequency with the **--** / **-** / **+** / **++** buttons.

In the **Email Users** and **Push device** sections, select the recipients. The **Email Users** list shows only users with valid access to the unit. If an item is missing from the list, click **Update** — the list is reloaded from the unit.

The **Run status** line shows the running state of the application. Save the settings with the **SAVE** button.

Main application card

The card (on the desktop e.g. **Wallbox EV Charger**) shows the vehicle charging status according to the wallbox energy meter.

- The card shows the charging status and the current control mode.
- The energy section shows the total power and the charging energy for the period, for today and in total.

The period and today's energy values are also shown on the **Period** and **Today** tiles on the desktop.

Notes

- Use the **Update** button to reload the list of available items (users, devices) from the unit. This button does not save the configuration.
- For clear visualisation and access to measurement history and graphs, we recommend connecting to Mervis SCADA.