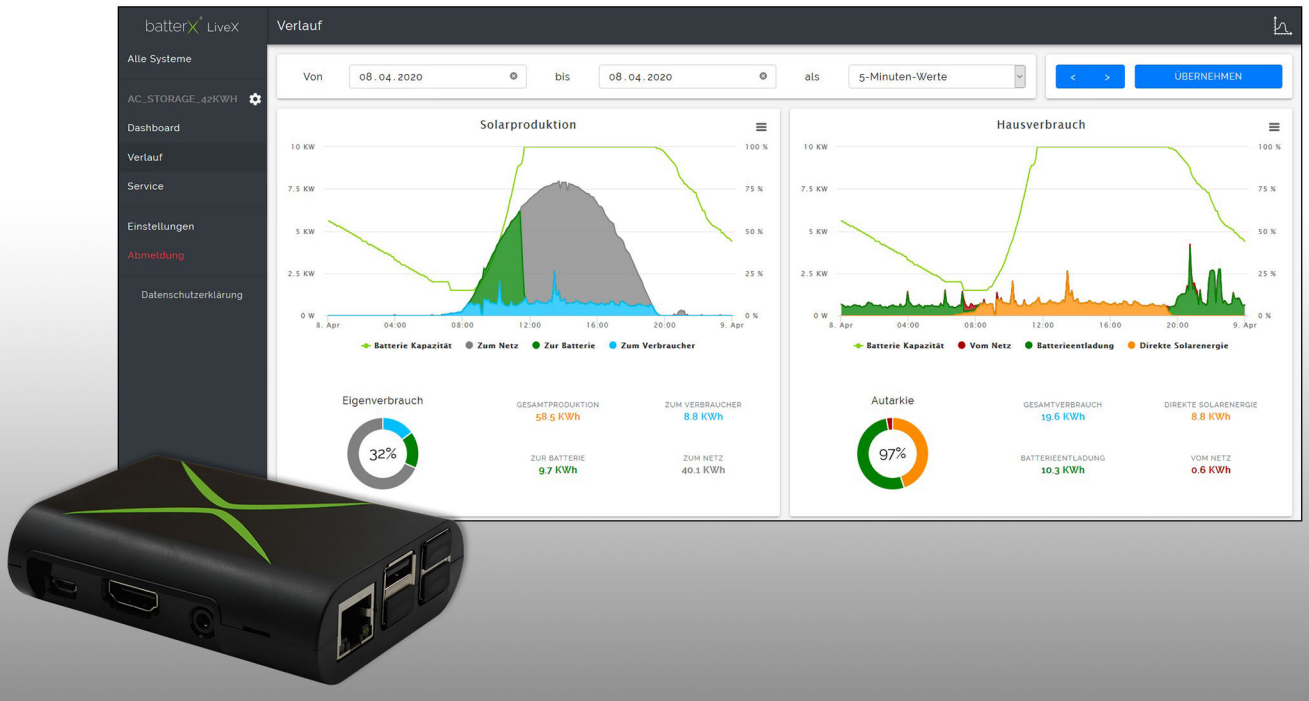
batterX®
TRAX

INSTALLATION MANUAL



www.batterx.io

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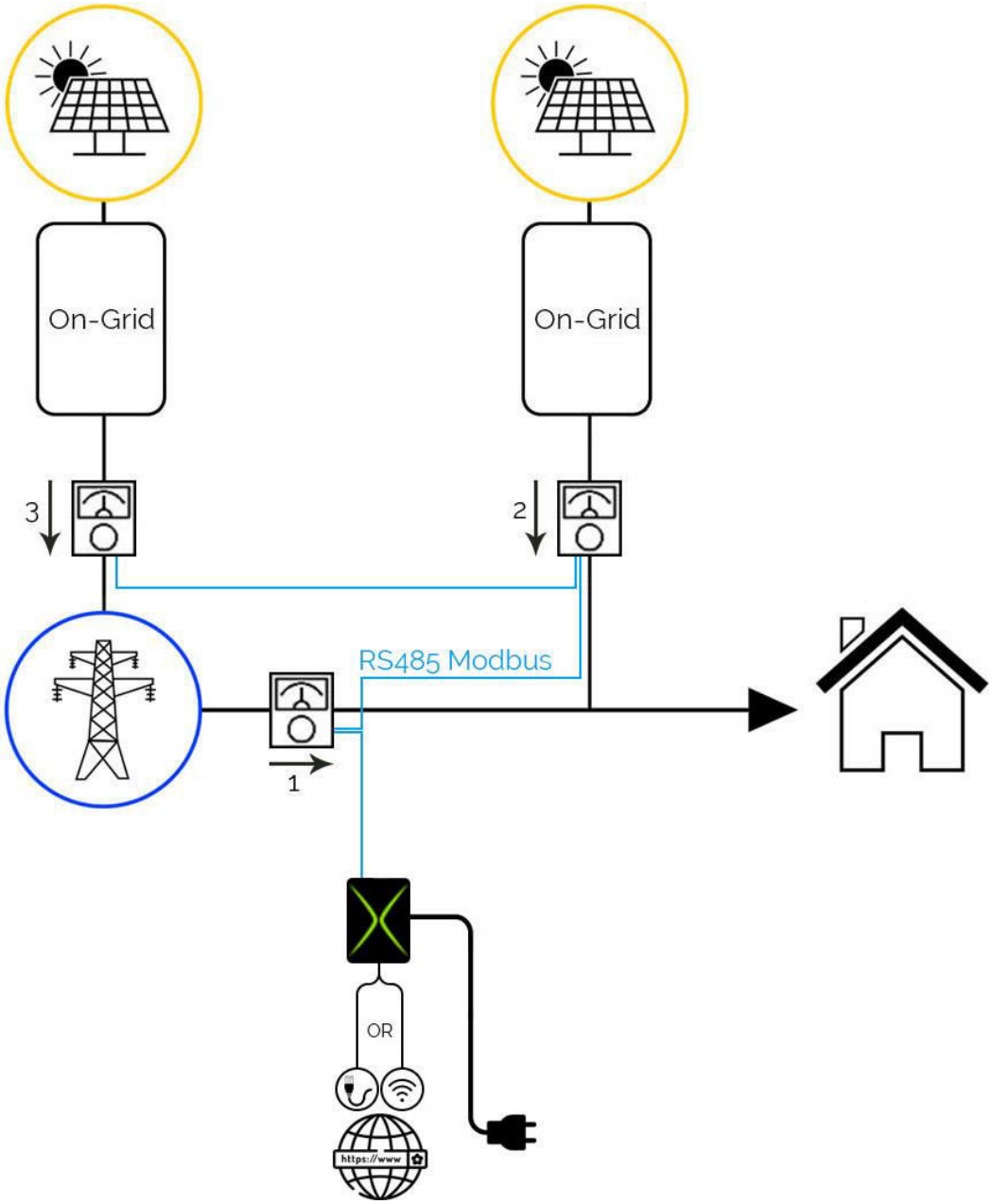
6. Energy Meter 2 (solar production)
7. 3x current transformer for Energy Meter 1 (L1, L2, L3)

2. INSTALLATION



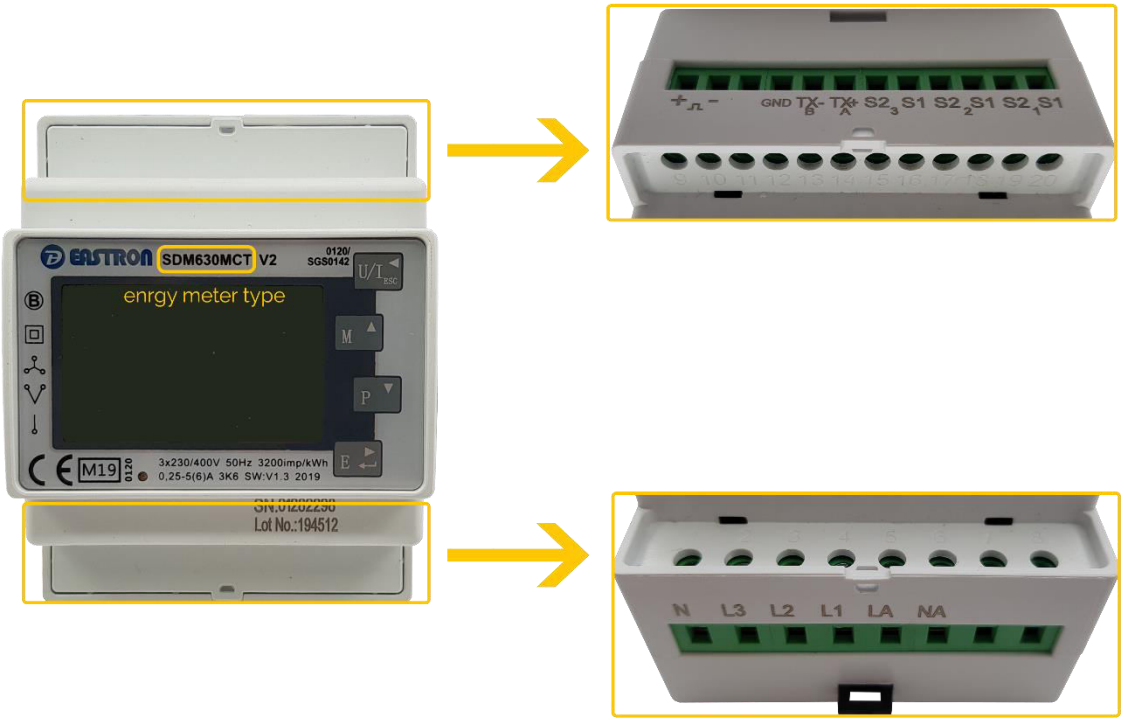
The first energy meter will be installed at the main injection point, mostly immediately behind the main grid counter. This energy meter is mandatory, all other energy meters are optional and will be placed according the installation.
If on-grid inverter are installed, we distinguish between surplus-**[2]** and full injection **[3]**. In both cases, the meter will be installed at the main supply line of the total solar production.

Since the cable cross sections and currents can vary, we use current transformers, short CT. The CT's size have to be determined when placing the order. Those CT's have a split core, so they can be installed without disconnecting the wires. The CT's direction must be respected.

3. ENERGY METER

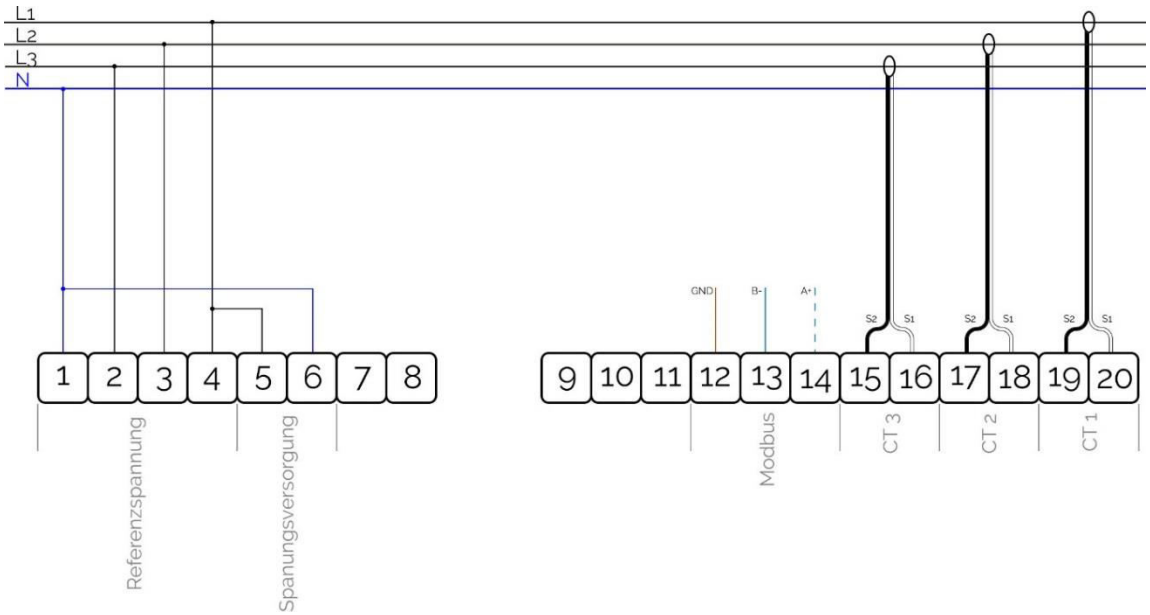
CONNECTIONS

The energy meters connections are located at the top and bottom and look as follows:



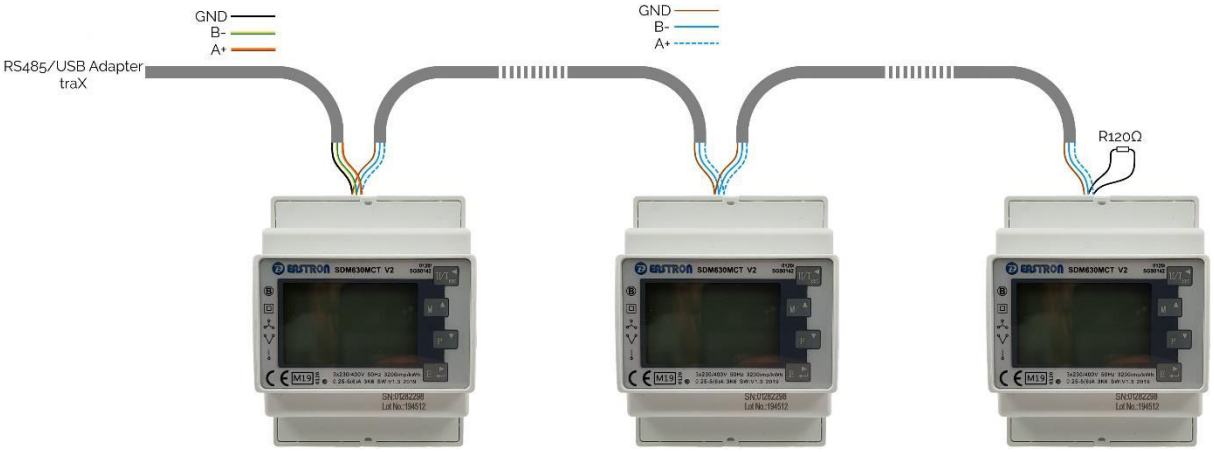
To make the energy meter work, several connections must be set up:

- 3x CT : Current measurement of each individual phase. All CT's have to be the same type.
- Modbus : Reading all values for the liveX portal
- L1, L2, L3, N : Reference voltage for the energy meter
- LA, NA : Power supply for the energy meter



MODBUS

All installed energy meters will be read out by the same modbus. Each device needs a different address, whereby the bus needs to be wired in a linear way, not like a star network. The buses last energy meter needs an additional terminal resistance, which will be installed between A+ and B-



CONFIGURATION

After successful installation, the energy meters should be started up and configured.

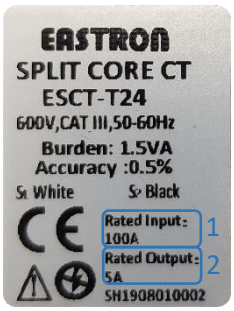
PARAMETER, COMMUNIKATION

- Adress : 1 – Energy meter at grid injection
  2 – Energy meter at solar production, surplus injection
  3 – Energy meter at solar production, full injection
- Baudrate: 9,6k
- Parity: EVEN
- Stop bits : 1

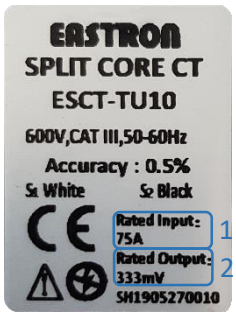
PARAMETER, CURRENT TRANSFORMER

Depending the requirements, the energy meter CT type can vary. It distinguishes between two different types, which have to be configured differently (the values to be configured may differ from the example below).

a. Energy meter *SDM630MCT* with *ESCT-T* series Coils
   CT2: 0005 [2]*
   CT rate: 0020 → Rated Input[1]/Rated Output [2]*
   PT2 : 0400
   PT rate: 0001



b. Energy meter *SDM630MCT-MV* with *ESCT-TU* series Coils
   CT2: 0333 [2]
   CT1: 0075 [1]
   PT2 : 0400
   PT rate: 0001



* This type of energy meter can be ordered in MID version. If this is your case, the CT parameter can be configured once. If wrong parameters are configured, you cannot use it anymore and have to replace it by a new one.

PROCEDURE

- Press Enter key for a few seconds
  A password is requested
- Enter password 1000 (with arrow and Enter key) and confirm by pressing and holding the Enter key.
  The setup menu will be opened
- Use the arrow keys to scroll through the menu and check the parameters.
  - If a parameter does not match the above value, press the Enter key for a few seconds until the parameter starts flashing. Now it can be changed with the arrow keys and subsequently be confirm by pressing the Enter key again for around 2 seconds. The display shows "good" if the parameter has been accepted.
- The setup menu can now be exited with the escape key.
- Your Energy Meter is now ready to use.

4. TRAX

The traX collects all energy meter data, processes it, and uploads them into the cloud afterwards. They can now be displayed in the liveX portal. The following connections must be connected.

- Micro USB Kabel : Power supply
- RS485/USB Adapter : Bus communication to Energy Meter
- LAN Connection : Network connection to the cloud (can later be replaced by a WLAN connection)

When the system has been shut down, it can only be restarted by cutting the power supply.

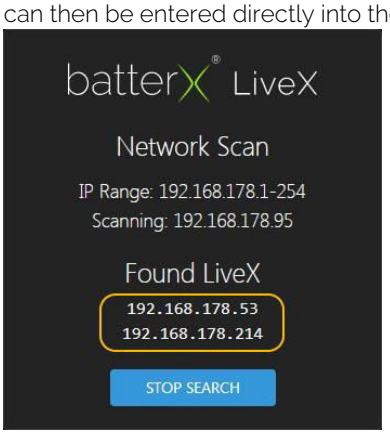
5. COMMISSIONING

ACCESS

The installation routine allows you to configure the system and to implement it into the liveX portal. It can be called up by typing http://batterx or batterx/ into the browsers address bar.
Die Installationsroutine ermöglicht es, das System zu konfigurieren und in das liveX Portal.

The laptop or PC must be in the same network as the batterX system.
We also recommend to use Chrome or Firefox as browser.

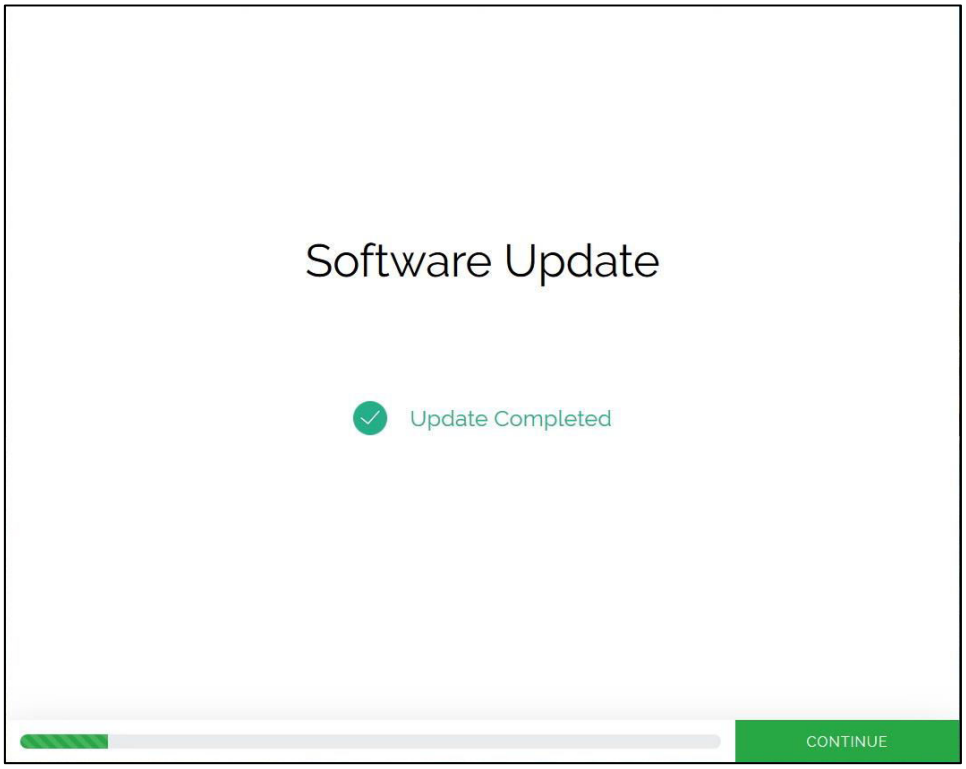
If the installation routine cannot be called up with one of these links, there is the alternative https://my.batterx.io/scan.html. This link calls a tool that searches the network for liveX devices. The IP found can then be entered directly into the browser's address bar, which calls up the installation routine.



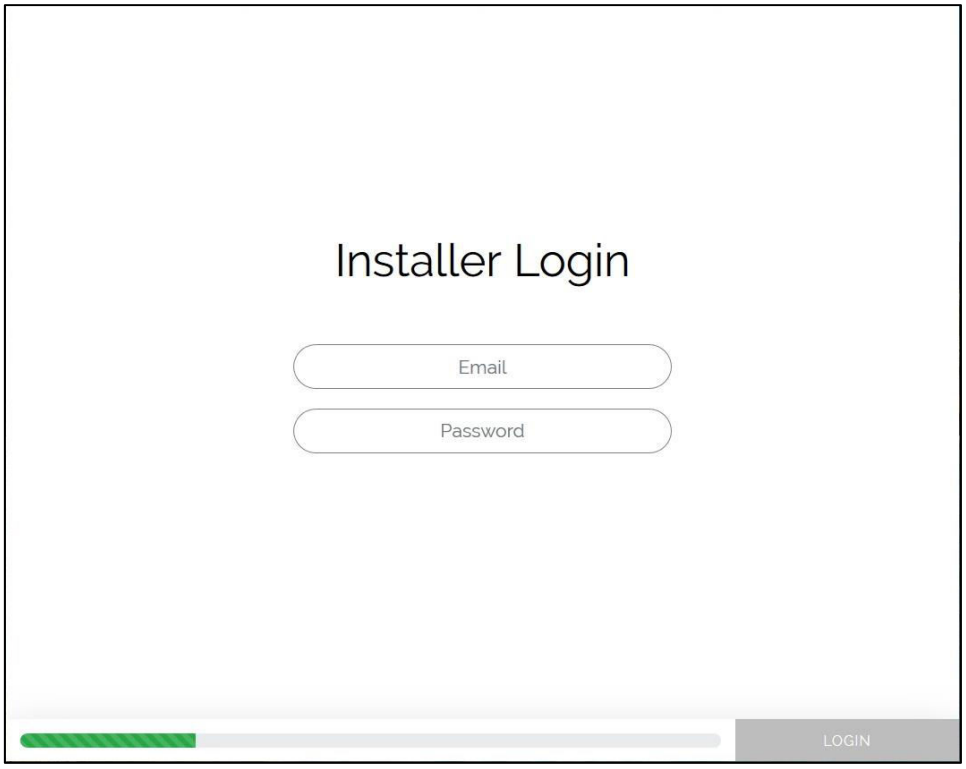
INSTALLATION ROUTINE

1. Choose your preferred language

2. Software update will be done automatically.

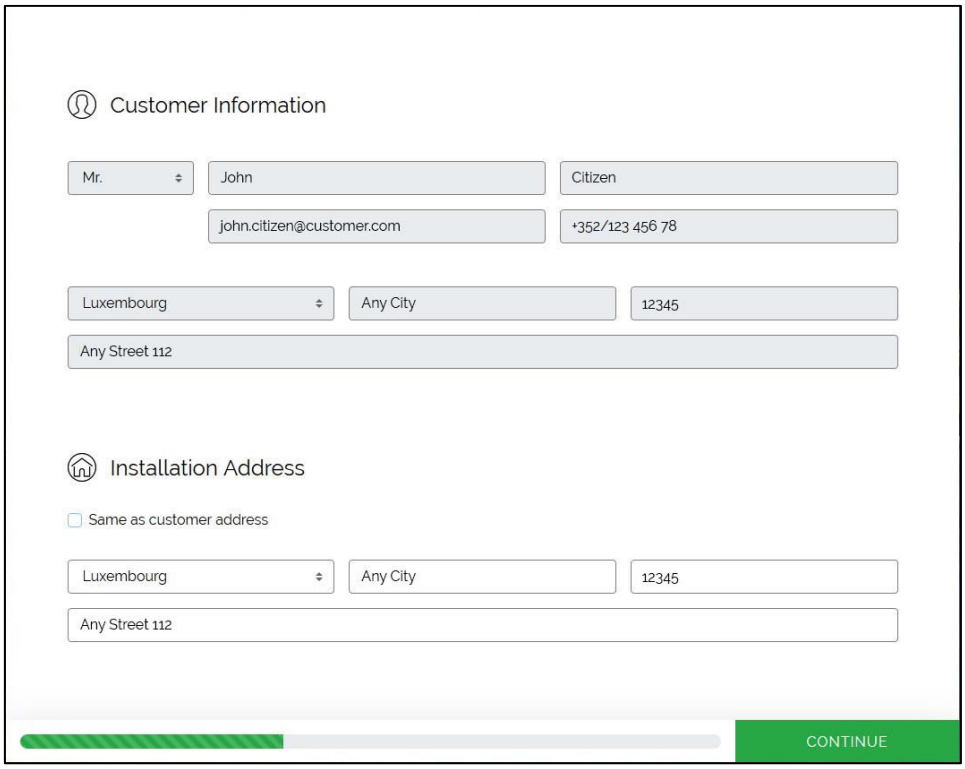


3. Log in with the installer account



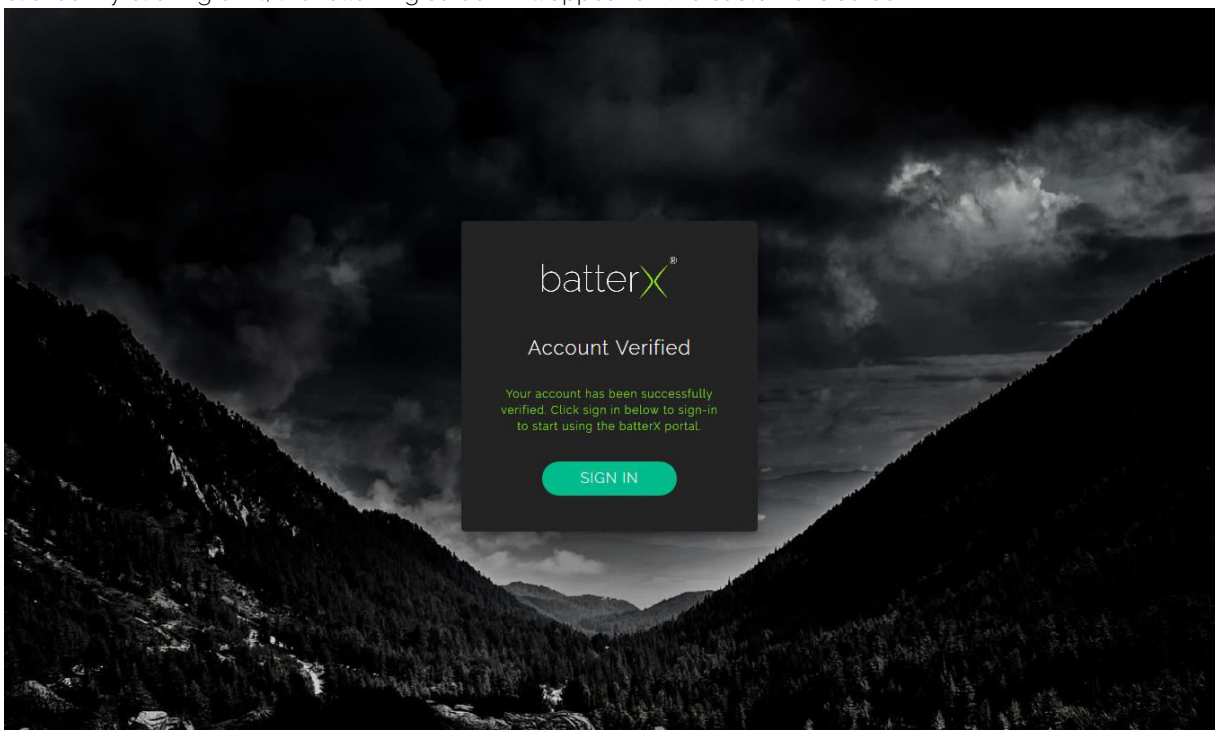
This account is created by the manufacturer. If an account has not been created yet, it has to be requested from your batterX partner.

4. Enter customer information and installation address.
   Please check "same as customer address", if customer and installation address are the same.



5. The configured device type and serial number will be displayed

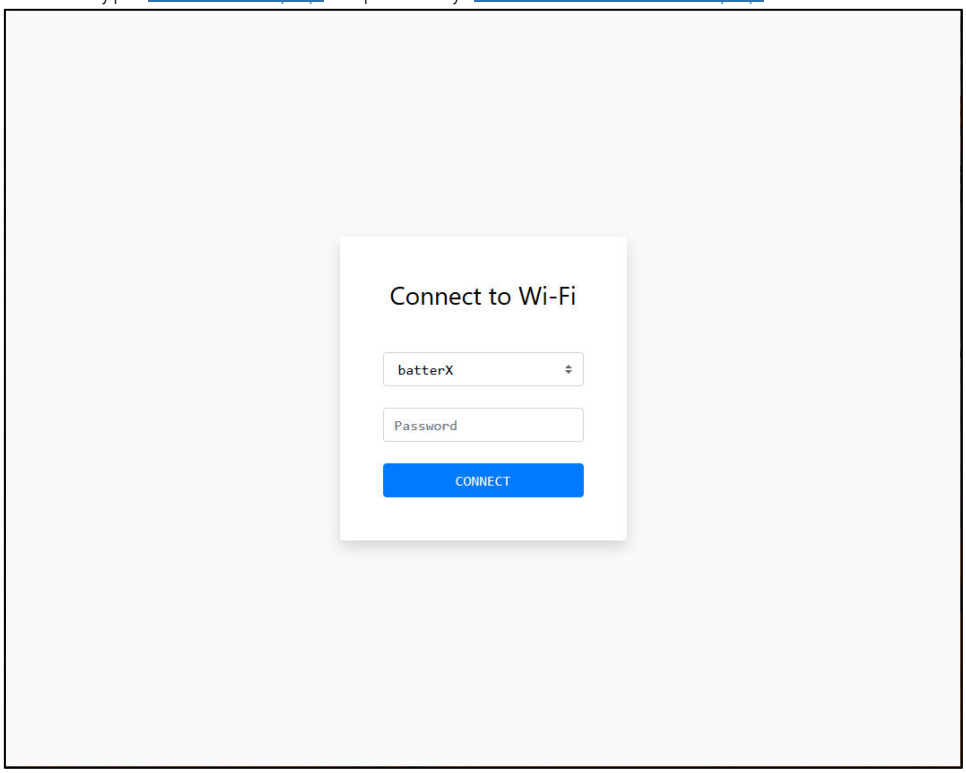
6. The traX has successfully been implemented into the liveX portal.
   The customer will receive an email with his login details and a link to account verification, which must be clicked. By clicking on it, the following screen will appear on the customer's screen.



The traX is now ready for operation

6. WLAN (OPTIONAL)

The internet connection can be switched from LAN to WLAN, after completing the installation. You just need to type batterx/wifi.php respectively. liveX_IP_ADRESS/wifi.php in the browsers address bar.



Choose the desired WLAN Network and enter the corresponding network key. The connected WLAN will be shown afterwards, and can be disconnected by clicking the "disconnect" button.