TQ B-Control Energy Manager EM300 - Commissioning

EM300 L / EM300 LR / EM300 LRW
This brief installation instruction provides a quick overview of all the necessary steps. Additional information, safety instructions, references, and sources can be found in our HelpCenter. The Installation instructions are only valid for the integration of the energy management system and the configuration of relevant assets. Make sure to carefully read the **safety instructions** and adhere to the **infrastructural requirements for a gridBox gateway installation**.

Required:

- Serial number and password of the device are on the identification plate of the device
- Web interface via http://192.168.1.200
- Current transformer requirements:
  - Secondary current 5A
  - Accuracy class 1 or better (for larger transformer ratios, more accurate transformers are preferred. Accuracy has a direct impact on energy management performance).

Connections

The following figure shows the EM 300 device.[1]

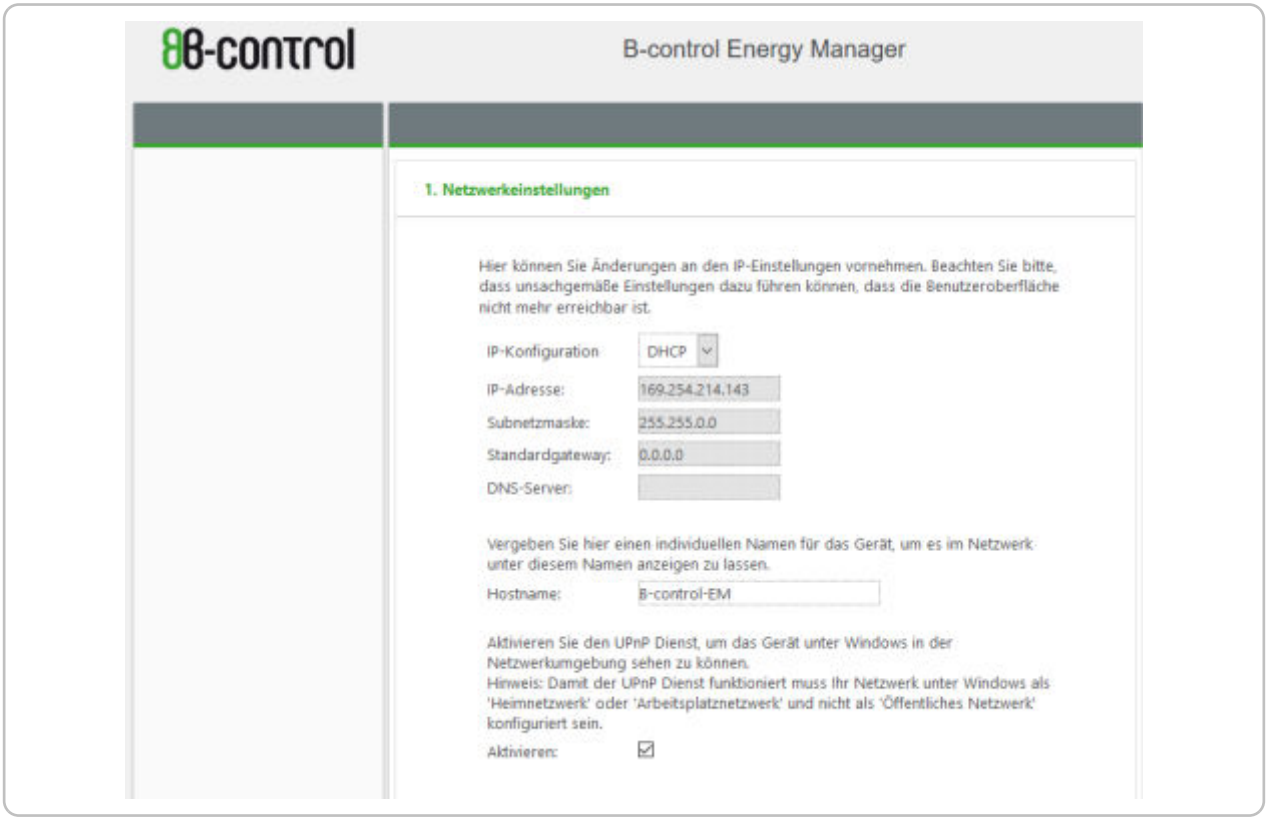
1	Output phases L1, L2, L3	6	WLAN
2	LED “Status”	7	LAN
3	LED “Network”	8	Input phases L1, L2, L3
4	LED “Sensor”	9	Input neutral conductor N
5	RESET button	10	RS485 interface

[1]Image source: AUT_EM300LRW_EN_Rev201.pdf, p. 13

The correct phase connection must be ensured. There must be no phase rotation.

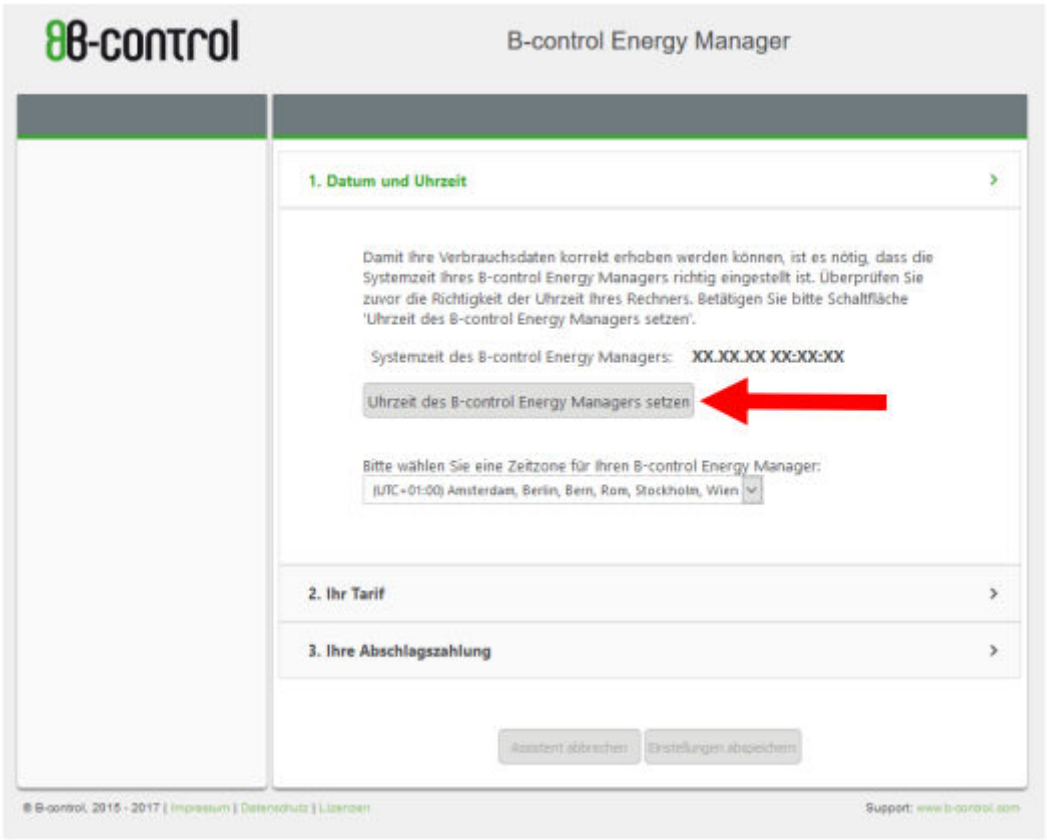
The transformer ratio must be documented so that it can later be configured accordingly.

The EM 300 uses DHCP to obtain an IP address in the network. This IP can usually be obtained from the router. It is recommended to set a fixed IP address in the EM 300 or a "Static Lease" in the router for the device.



Configuration

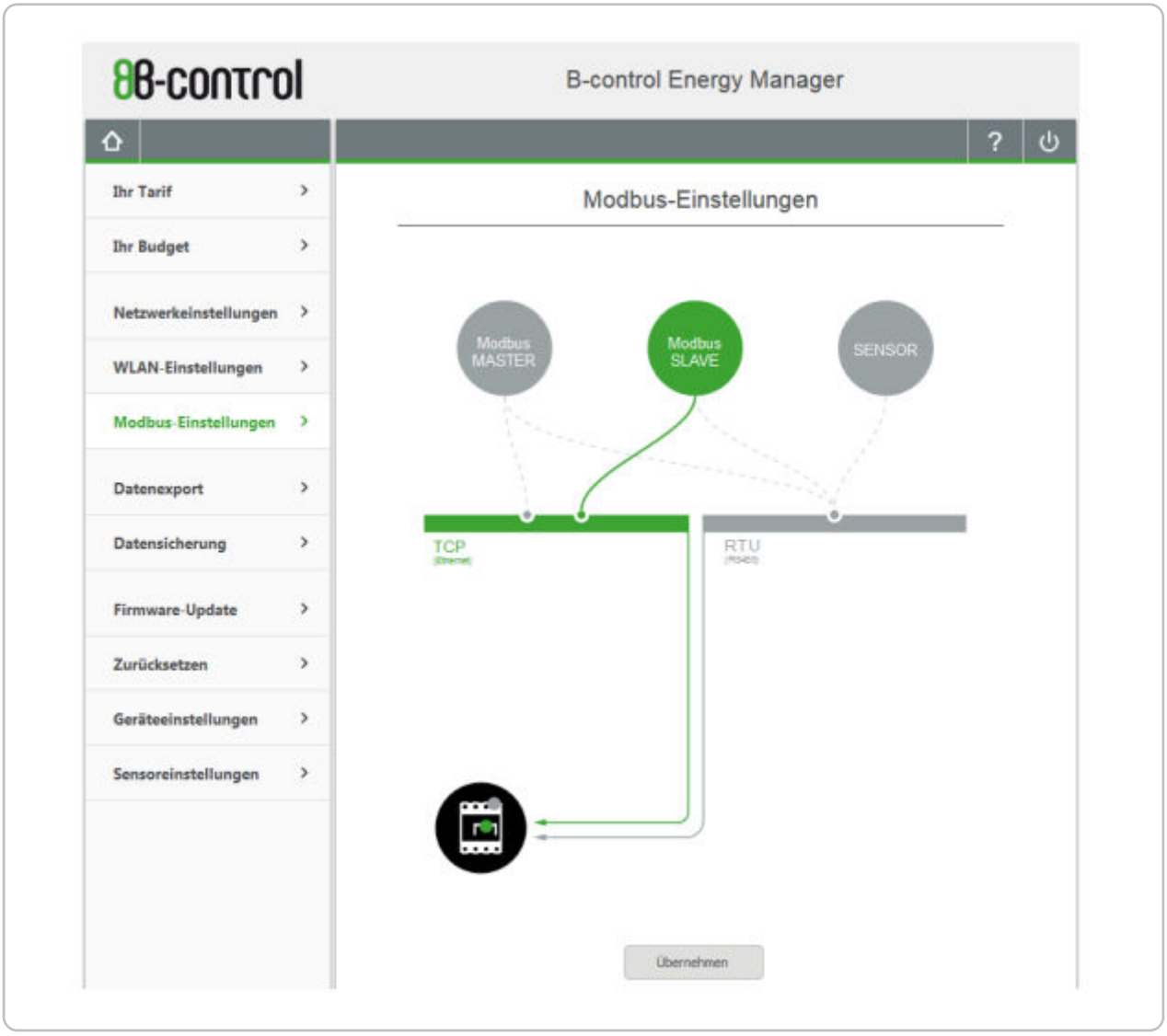
1. Access the web interface of the B-control Energy Meter via http://192.168.1.200.
2. Enter the date and time in the corresponding fields in the web interface so that the consumption data can be recorded correctly



Modbus TCP slave

To use EM 300 with a load management system, communication via Modbus TCP must be activated in slave mode.

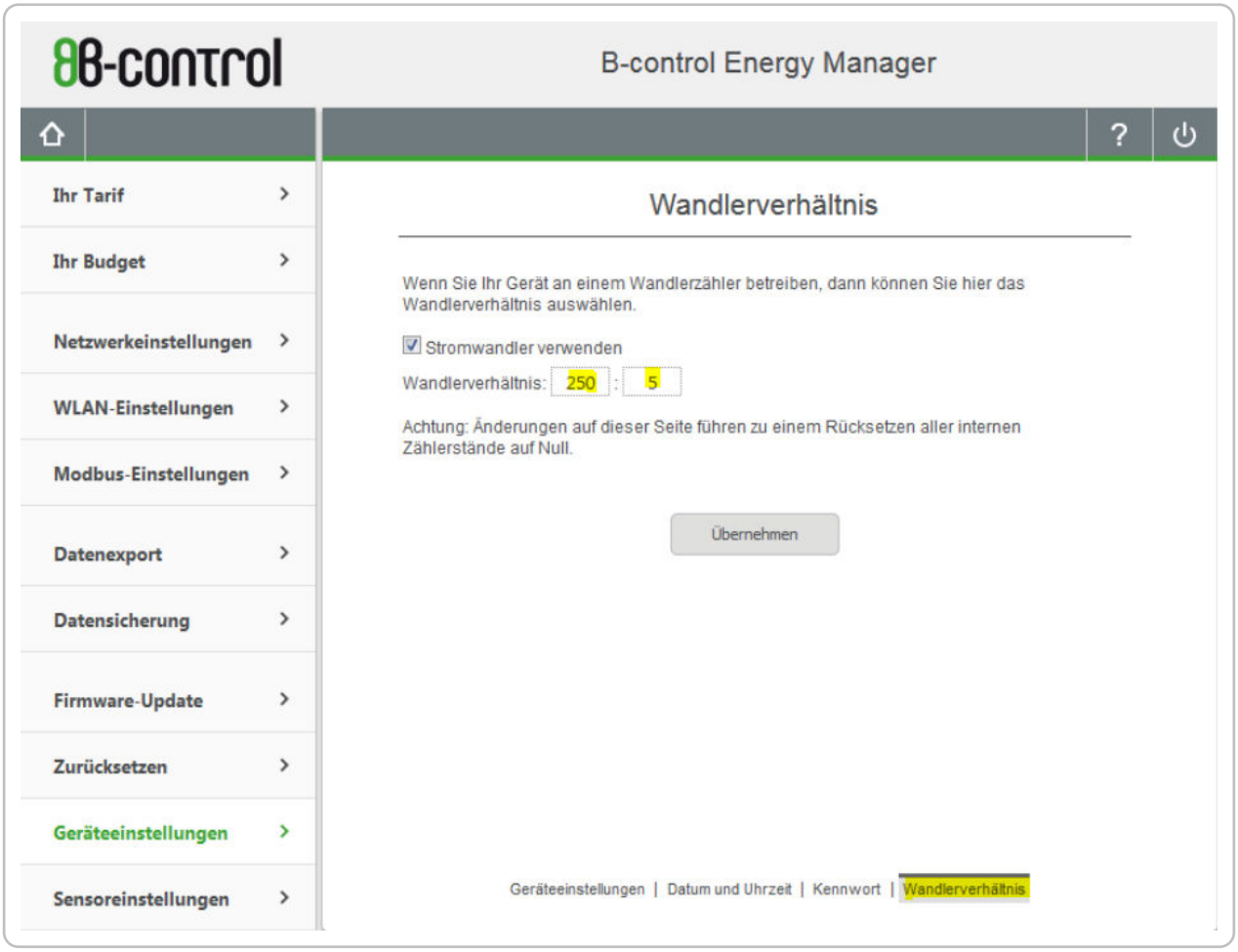
This is preconfigured by default in the Energy Manager for data transmission:



Current transformer factor

If the EM 300 is to be operated in a current transducer measurement, the transducer factor must be configured accordingly. Specify the transformer ratio (currents >63 A).

1. Select "Device settings" in the main menu.
2. Activate the use of external current transformers in the **External current transformers** area and set the current transformer factor according to the documentation.



NOTE

The secondary side must always be 5 A.