

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



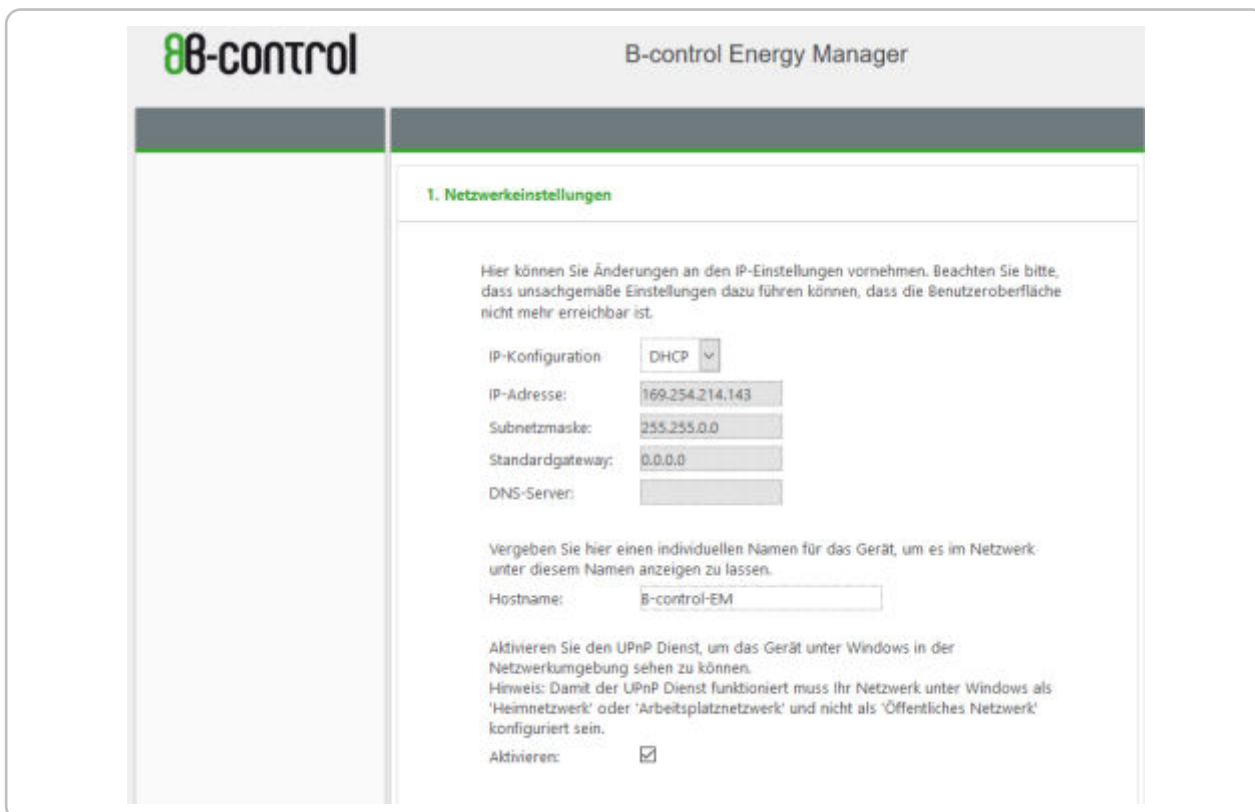
1	Output phases L1, L2, L3	6	WLAN
2	LED "Status"	7	LAN
3	LED "Network"	8	Input phases L1, L2, L3
4	LED "Sensor"	9	Input neutral conductor N
5	RESET button	10	RS485 interface

¹Image 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.

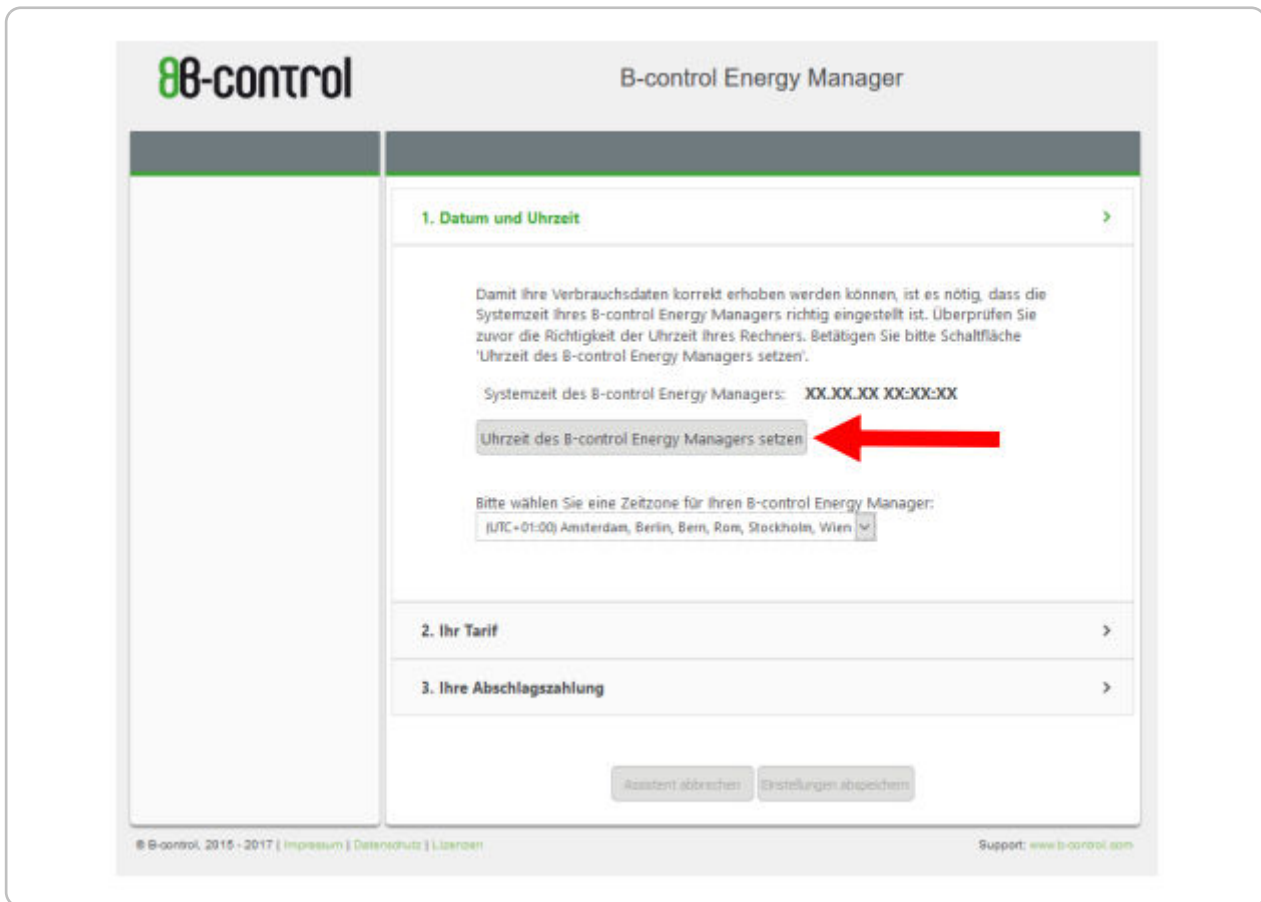
The EM 300 uses DHCP to obtain an IP address in the network. This IP can usually be obtained from the router. It is recommended to set a fixed IP address in the EM 300 or a "Static Lease" in the router for the device.



The screenshot displays the 'B-control Energy Manager' web interface. The page title is '1. Netzwerkeinstellungen'. Below the title, there is a warning message: 'Hier können Sie Änderungen an den IP-Einstellungen vornehmen. Beachten Sie bitte, dass unsachgemäße Einstellungen dazu führen können, dass die Benutzeroberfläche nicht mehr erreichbar ist.' The configuration fields are as follows: 'IP-Konfiguration' is set to 'DHCP' (dropdown menu); 'IP-Adresse' is '169.254.214.143'; 'Subnetzmaske' is '255.255.0.0'; 'Standardgateway' is '0.0.0.0'; 'DNS-Server' is empty. Below these fields, there is a section for 'Hostname' with the value 'B-control-EM'. At the bottom, there is a section for 'UPnP Dienst' with a warning: 'Hinweis: Damit der UPnP Dienst funktioniert muss Ihr Netzwerk unter Windows als 'Heimnetzwerk' oder 'Arbeitsplatznetzwerk' und nicht als 'Öffentliches Netzwerk' konfiguriert sein.' The 'Aktivieren:' checkbox is checked.

Configuration

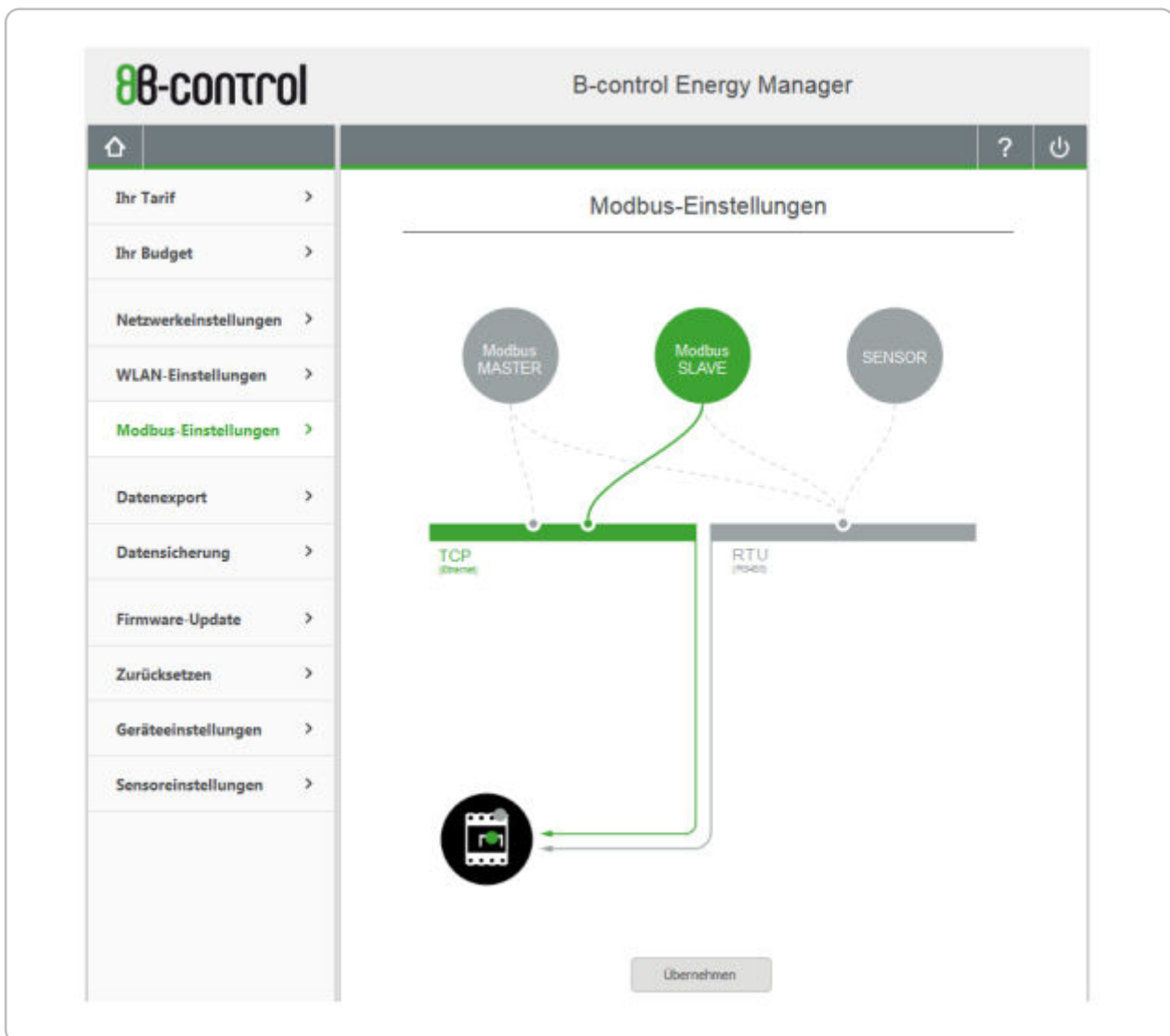
1. Access the web interface of the B-control Energy Meter via <http://192.168.1.200>.
2. Enter the date and time in the corresponding fields in the web interface so that the consumption data can be recorded correctly



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.

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B-control Energy Manager

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Wanderverhältnis

Wenn Sie Ihr Gerät an einem Wandlerzähler betreiben, dann können Sie hier das Wanderverhältnis auswählen.

Stromwandler verwenden

Wanderverhältnis: :

Achtung: Änderungen auf dieser Seite führen zu einem Zurücksetzen aller internen Zählerstände auf Null.

Übernehmen

Geräteeinstellungen | Datum und Uhrzeit | Kennwort | **Wanderverhältnis**



NOTE

The secondary side must always be 5 A.