

MENNEKES Charging Station

Version:2026.9.4

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1. Introduction

2026.9.4

In this guide, you'll learn how to configure the MENNEKES-Ladestation for the EMS and integrate it into the EMS. Please read the guide carefully to get the most out of the app's features.

The license key you purchased, *AC Charging Station*, can be redeemed for *one* of the supported charging stations.

Click here to learn how to register and redeem a newly purchased license key. You will also find general instructions on how to install an FEMS App.



If another supported charging station is currently installed, the license key can be transferred to the new charging station by uninstalling the previous app.

This activates the license key, which can then be used to integrate a new charging station into EMS.

2. Installation

2.1. Compatibility

The following models are compatible with EMS:

- AMTRON 4You 400
- AMTRON 4You 500
- AMTRON 4Business
- AMTRON Professional (excluding Twincharge for now) ^]

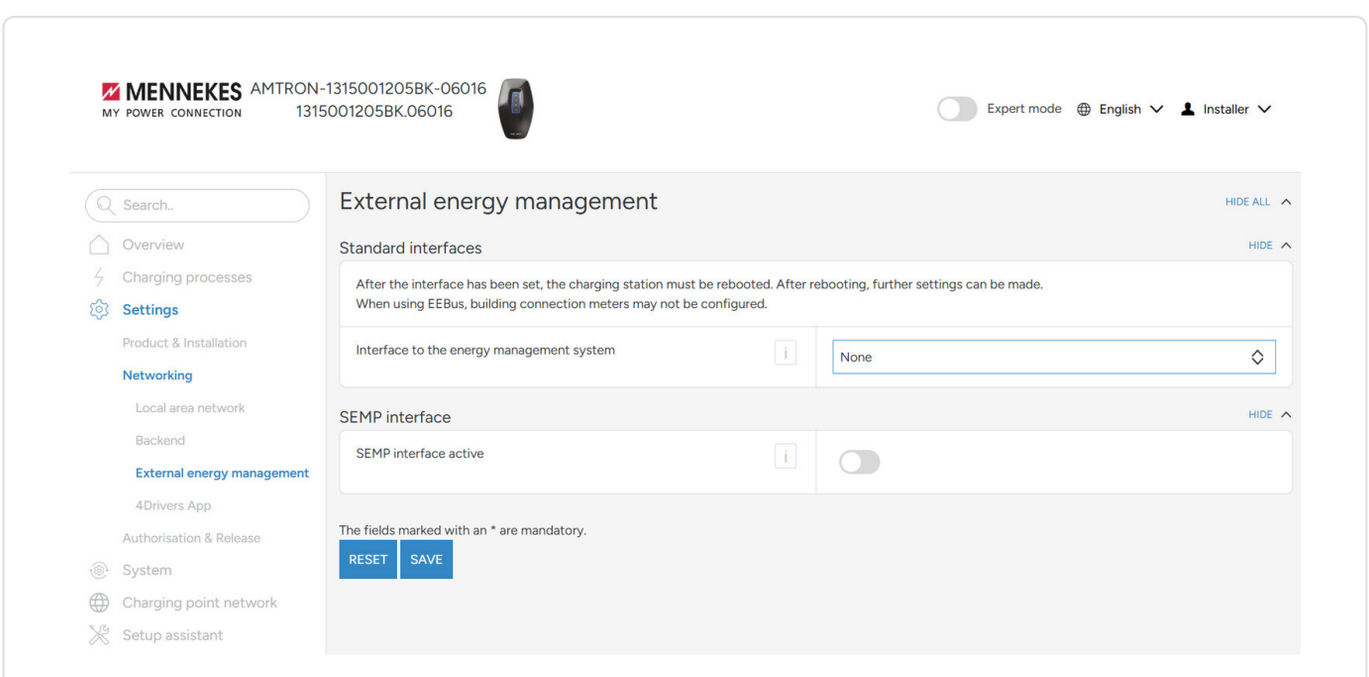
2.2. Hardware

For hardware installation, please refer to the official MENNEKES documentation.

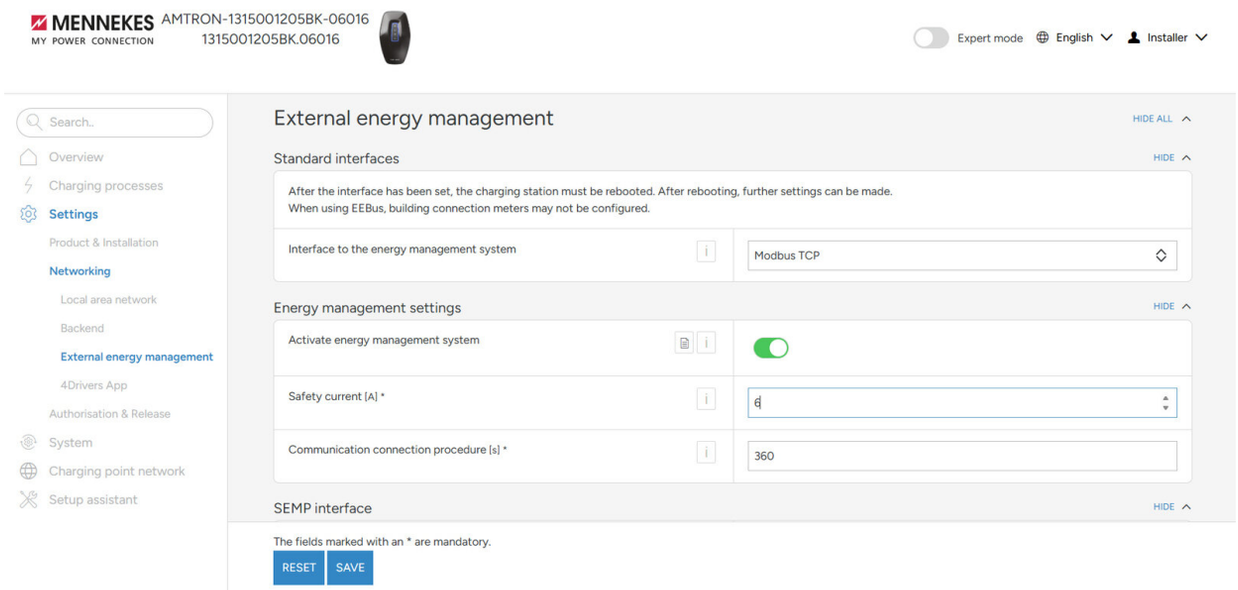
The hardware installation must be performed by a licensed electrician.

2.3. Settings via the MENNEKES web interface

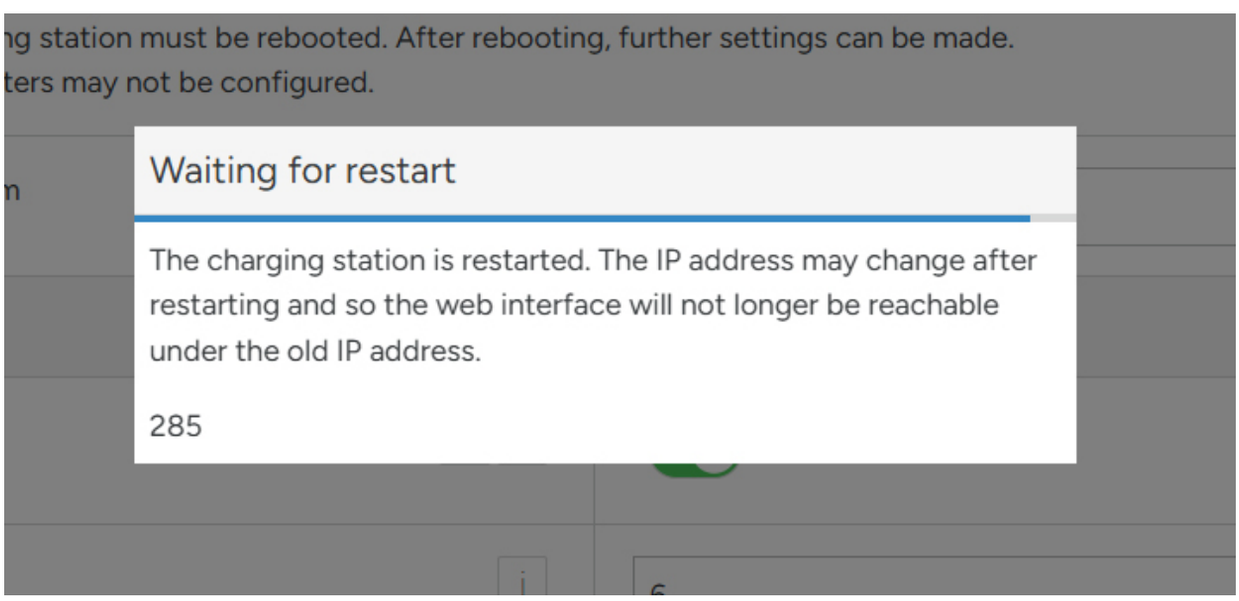
1. Log in to the MENNEKES charging station via the web interface and navigate to *Settings* > *Networking* > *External Energy Management* using the side menu:



2. From the drop-down menu, select **Modbus TCP** as the interface to the energy management system.
3. Enable the energy management system by clicking the toggle.
4. The safety current should be set to 6 A. The timeout for the communication connection should be set to 360 seconds.

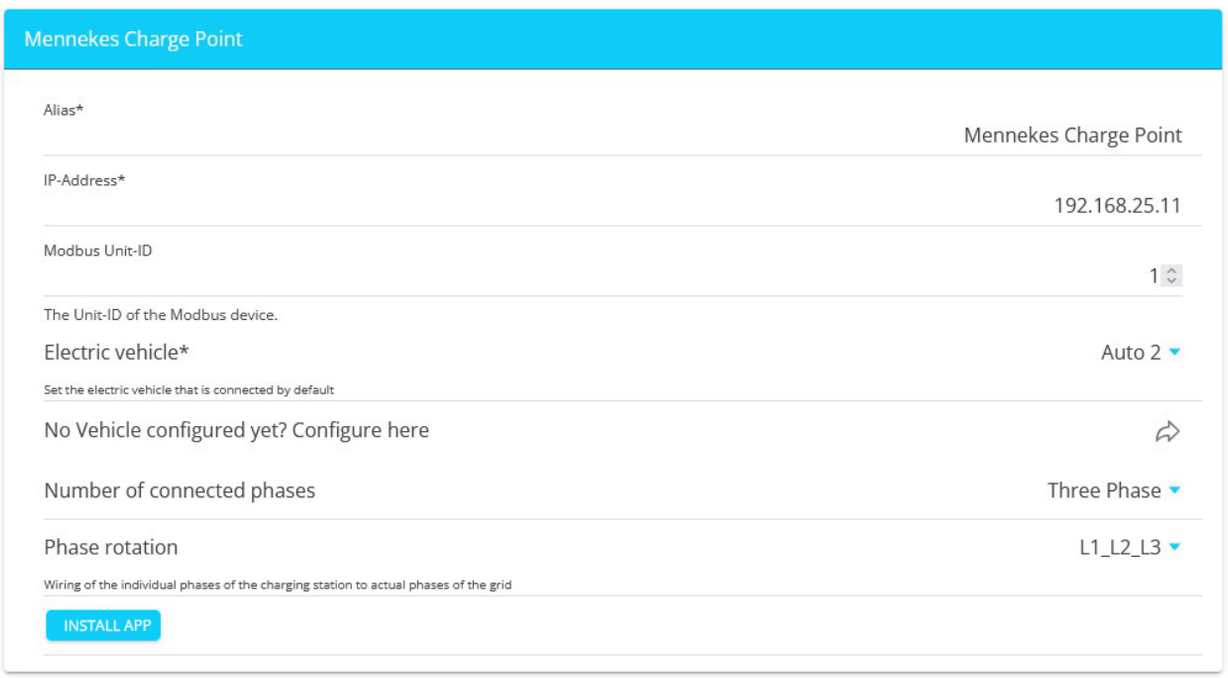


5. After you have made the settings, click *SAVE*.
6. Restart the charging station.



2.4. Integrating the charging station into EMS

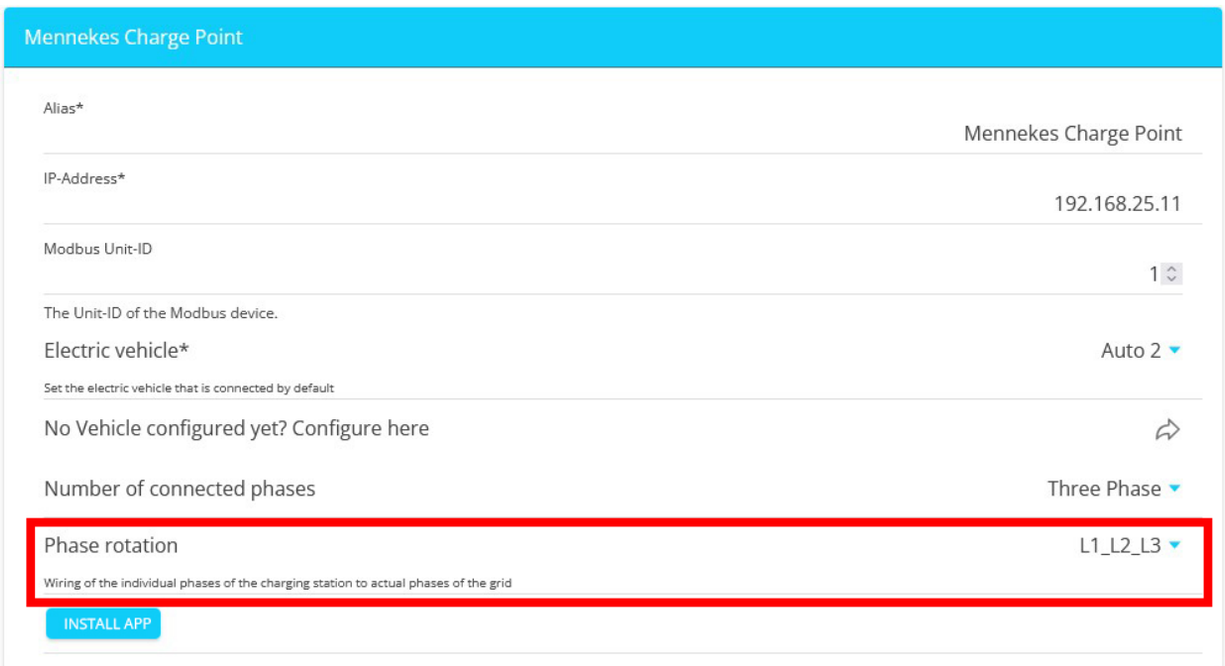
1. Once you have configured the settings for the charging station, you can integrate the charging station into EMS.
2. In EMS, go to *Settings* to open the App Center and install FEMS App by following these instructions: General installation instructions for FEMS Apps.



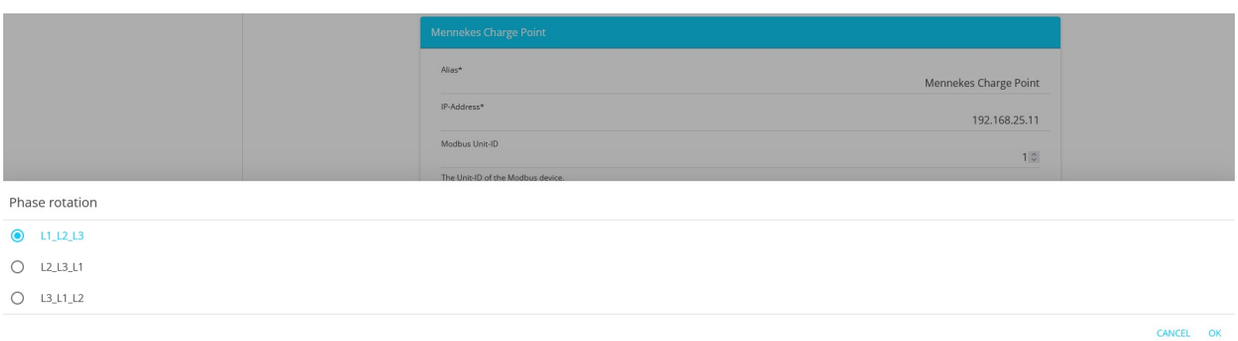
Some of the input fields are pre-filled. Check the data and adjust it if necessary if it differs from the default values (e. g., IP address). Otherwise, the default values can be retained (e. g., port, Modbus unit ID).

- Required fields are marked with an *.

3. Select the phase rotation. This setting must match the phase rotation of the charging station.



4. The phase connection L1_L2_L3 is selected as standard.



5. Check your entries and make sure they are correct. Otherwise, the app will not work properly.
6. After you have configured the settings in EMS, complete the installation by clicking **[INSTALL APP]**.

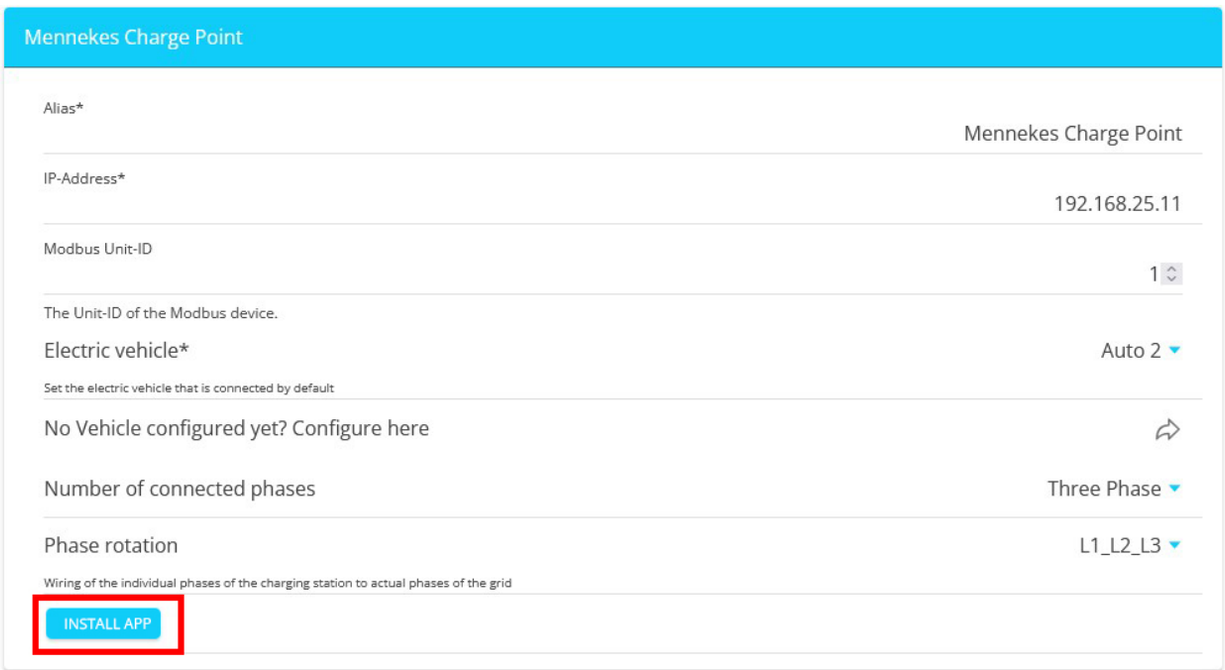
In addition to the information provided, you must enable the *New UI* option for FEMS App MENNEKES Charging Station at ☑.

This will update the user interface of FEMS App MENNEKES Charging Station to the new design, which will significantly improve the app's usability, especially on mobile devices.

For more information about the new design, see Changelog for the EMS beta test.

INFO: It is not possible to revert to the old design.

If you use the app to access multiple charging stations, they will also be automatically updated to the new design.



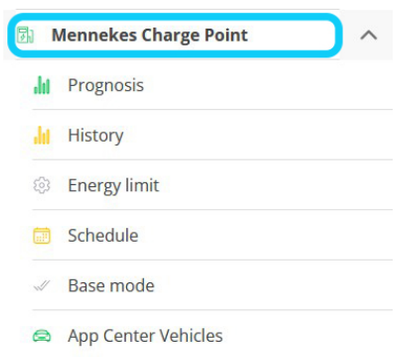
7. The charging station is now integrated into EMS and can be controlled via the app.
8. In the App Center, via the EDIT APP, you can adjust the app's configuration at a later time.

3. How to Use MENNEKES Charging Station

3.1. Charging stating main window

A charging station is displayed in EMS at Consumption.

Click or tap in the menu to open the main window for your charging station. This window displays various pieces of information, e. g. the current charging mode, charging power, etc.



Depending on the submenu item selected, the main window displays different information and settings:



The highlighted area below displays custom tasks (schedule).

In addition, the modes currently active — **Base Mode** and **Active Mode** — are displayed to the right of the charging station.

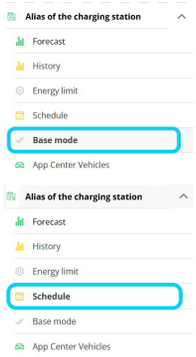
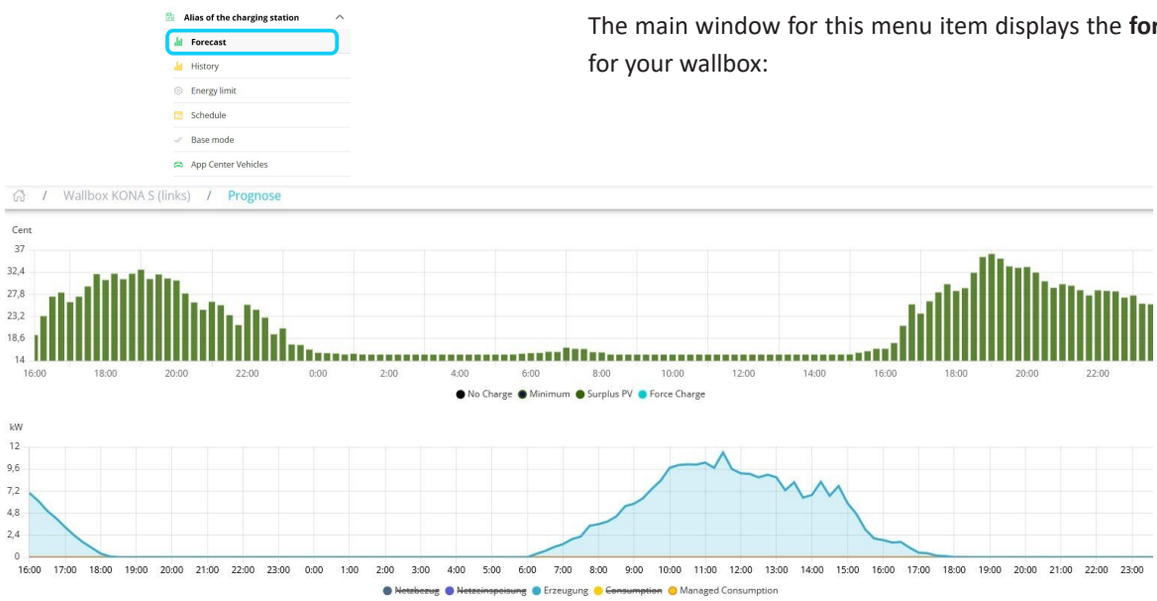
	The **Base Mode** can be set via the submenu item Grundmodus. **Active Mode** can be set via the submenu item Zeitplan.

Table 1. Explanation — Basic Mode and Active Mode

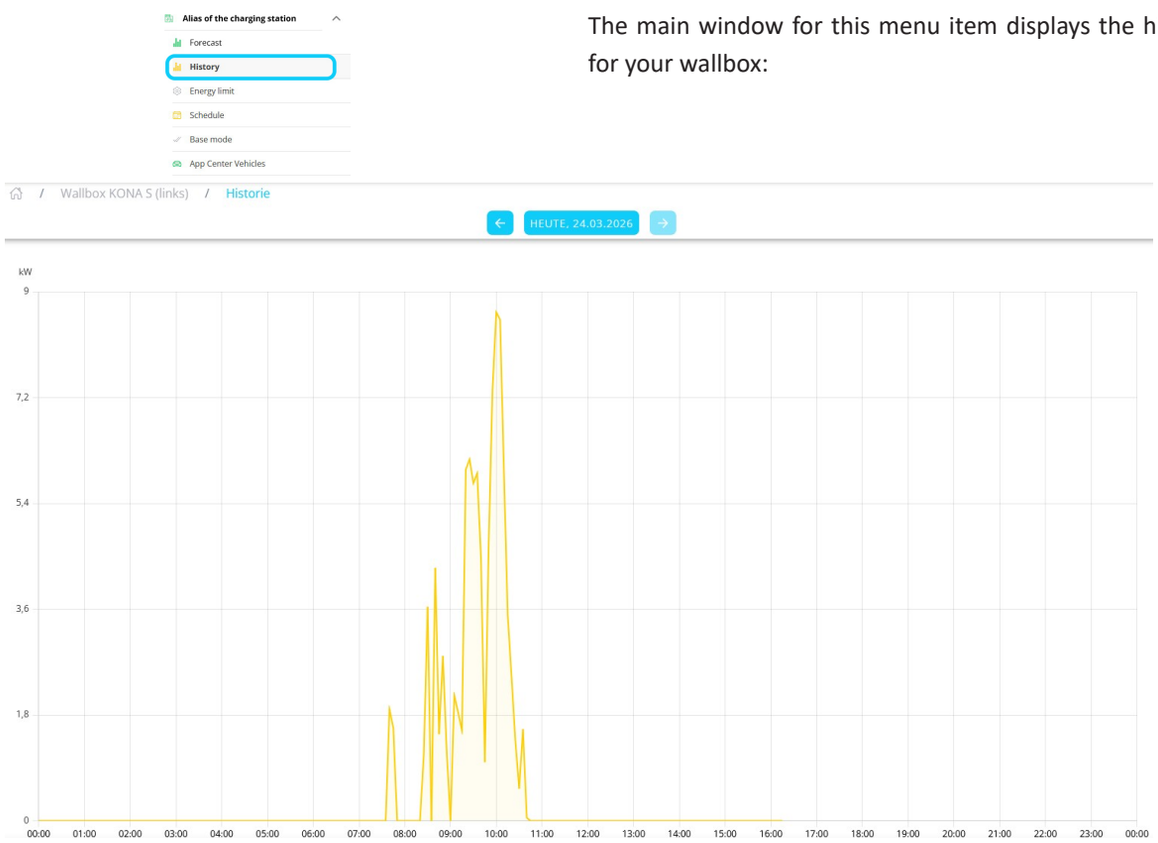
3.2. Forecast



The main window for this menu item displays the **forecast** for your wallbox:

Table 2. Explanation — Forecast

3.3. History



The main window for this menu item displays the history for your wallbox:

Table 3. Explanation — History

3.4. Energy limit

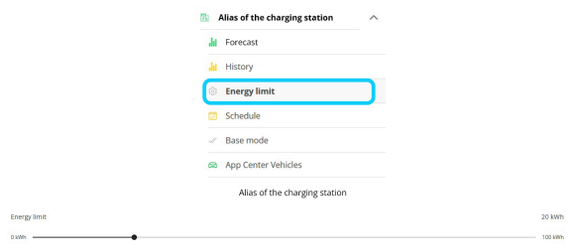
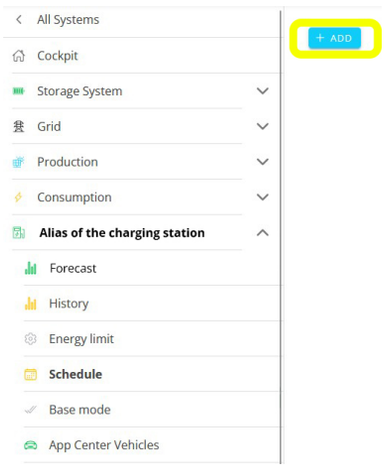
	Use this menu item to set an **energy limit** for charging your vehicle. There is a slider for this in the corresponding main window. • Energy limit **0**: The vehicle will continue charging without restriction until its battery is fully charged or **Base Mode** is set to *Off*. • Energy limit **20**: The battery is charged up to a maximum of 20 kWh during each charging cycle. etc. Confirm the setting using the ☑ in the lower-right corner of the main window.

Table 4. Explanation — Energy limit

3.5. Schedule (Active Mode)

Klicken oder tippen Sie auf die Menüoption *Zeitplan*, um einen **Aktiven Modus** einzustellen.
Dieser Modus überschreibt den Grundmodus der Ladestation mit benutzerdefinierten Aufgaben.

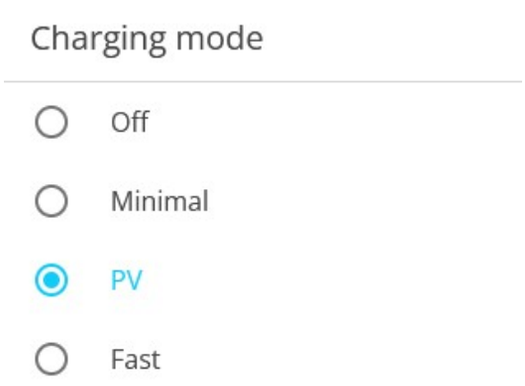


In the main window, click or tap **[+ ADD]** to create a new task.

Now you can configure settings for your task:



Charging Mode
Select the desired charging mode for the task. The following options are available:



No charging

Completely disables the charging station.

Excess solar power with guaranteed charging

The *PV Surplus with Guaranteed Charging* mode **guarantees a minimum charging status for the vehicle**. If there is sufficient PV surplus, it is used. If there is no PV surplus, the vehicle is charged using grid with-

drawal up to the minimum charging power.

Excess solar power

In *PV Surplus* mode, EV charging is dynamically adjusted to the excess electrical energy.

Fast charging

In *Fast Charging* mode, the vehicle charges as quickly as possible.

Wiederholung und Start-/Endzeiten

Stellen Sie dann den **Wiederholungsintervall** ein und definieren Sie eine **Start- und Endzeit** für die Aufgabe.

Using **[+ ACCEPT]** saves the task and displays it in the overview of your charging station in the main window.

Edit Task

This main window displays your custom tasks (schedule).

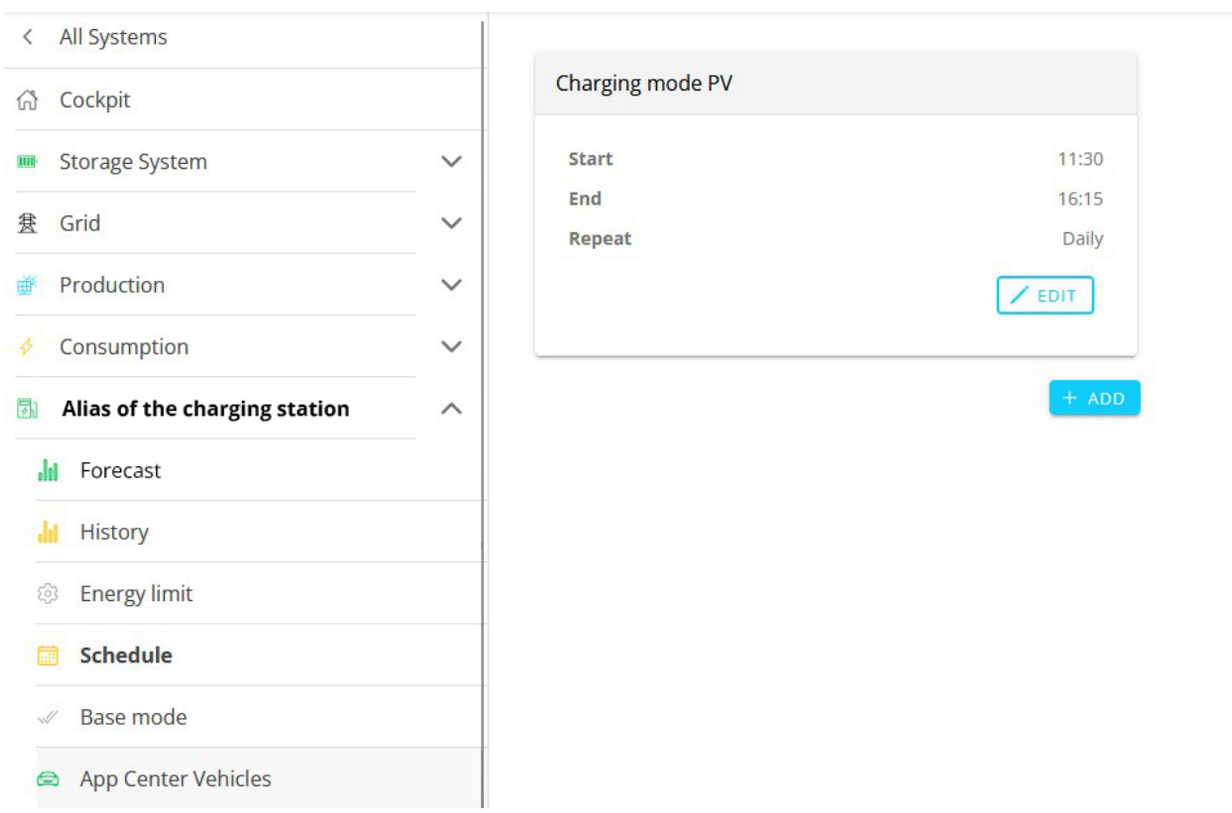


Image 1. Overview — Schedule with a created task

If you already have a task in the list, you can *EDIT* it to, e. g. adjust the time period or the charging mode during that time period.



Use **[ACCEPT]** to save your changes to the task.

Click/tap DELETE to delete the task.

3.6. Base mode

Click or tap the *Base Mode* menu item to open the following main window:

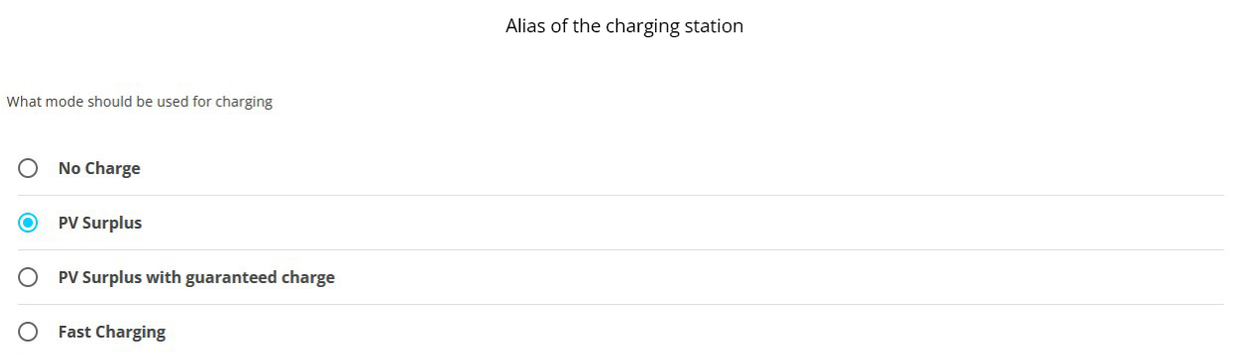


Image 2. Example — Overview — Base Modes

No charging

Completely disables the charging station.

Excess solar power

In *PV Surplus* mode, EV charging is dynamically adjusted to the excess electrical energy.

Excess solar power with guaranteed charging

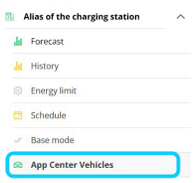
The *PV Surplus with Guaranteed Charging* mode **guarantees a minimum charging status for the vehicle**. If there is sufficient PV surplus, it is used. If there is no PV surplus, the vehicle is charged using grid withdrawal up to the minimum charging power.

Fast charging

In *Fast Charging* mode, the vehicle charges as quickly as possible.

Confirm the setting using the ☑ in the lower-right corner of the main window.

3.7. App Center Vehicles



Use this menu item to configure vehicle-specific settings.

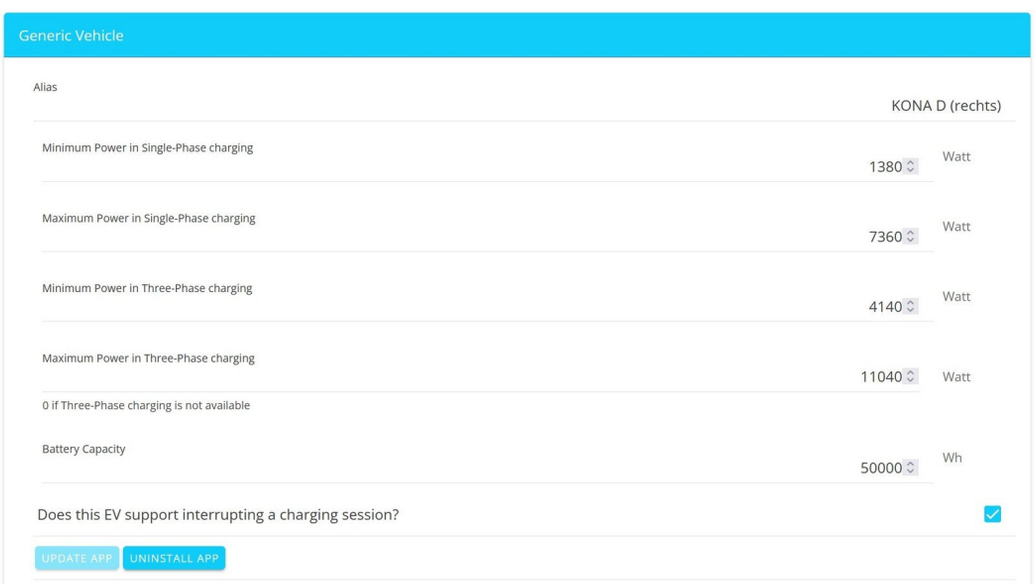
The main window displays the settings for the *Generic Vehicle* app.

The *Generic Vehicle* app is automatically installed when you install FEMS App MENNEKES Charging Station.

Generic Vehicle means:

- The **primary vehicle** that is charged at this charging station by default.
- We recommend that you provide the correct model name of the vehicle.
- You can also define more than one vehicle.

The following settings are available for the connected Generic Vehicle:

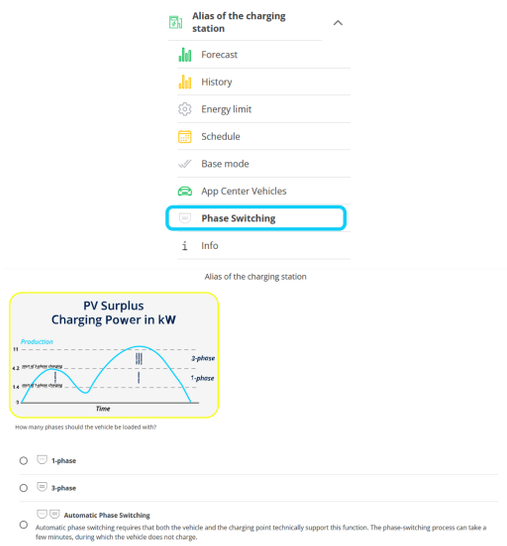


Once you have made the desired changes, save them by clicking **[UPDATE APP]**.

These settings provide EMS with more precise vehicle data, making the charging forecast for your vehicle more accurate. You can also enter your vehicle's model name here so that it appears in the app.

3.8. Phase Switching

If a PV charging mode (*PV Surplus* or *PV Surplus with guaranteed charging*) is selected for your charging station, you can manually switch from 1-phase to 3-phase charging in the submenu using the *Phase Switching* option:

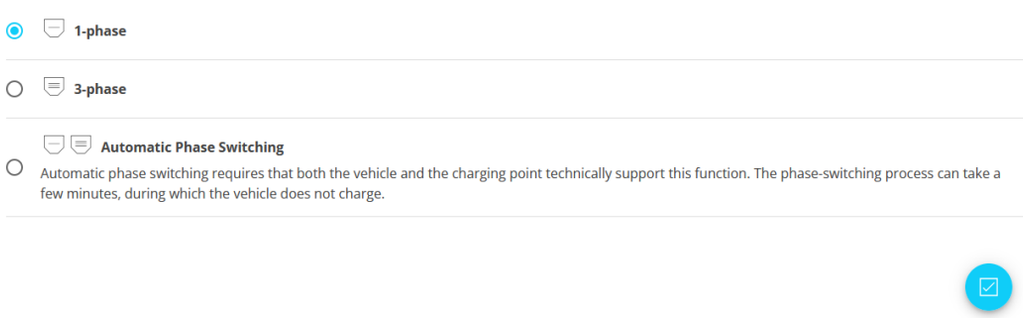


Tap or click the submenu item to access the following main screen.

The following options are available here:

- Manual Phase Switching, 1- or 3-phase
- Automatic Phase Switching

3.8.1. Manual Phase Switching



Use Case

One scenario would be to use the limited PV production to charge the vehicle anyway by manually switching to single-phase charging.

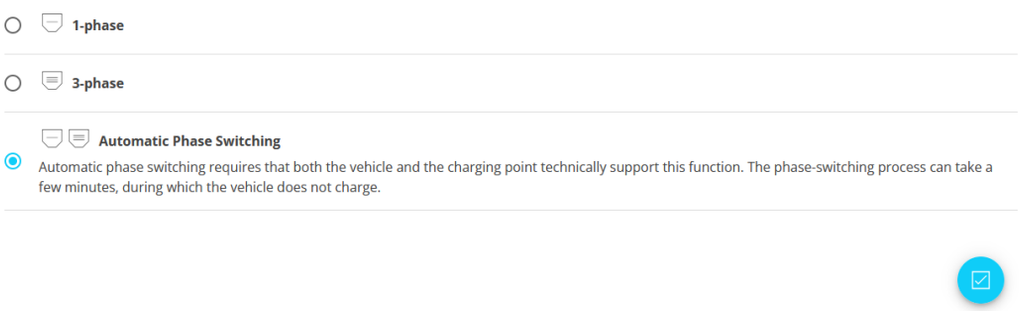
Switching During Charging:
When manually switching from single-phase to three-phase and vice versa, the hardware undergoes a 30-second switching process each time.

- Please wait during this switchover.
- During these 30 seconds, the charging power is reduced to 0 kW, and then the switchover occurs.

- When performing phase switching, vehicles behave differently depending on the model.
- Your vehicle must support phase switching.

3.8.2. Automatic Phase Switching

In addition to the Manual Phase Switching (1- or 3-phase), there is the option of Automatic Phase Switching:



The phases are automatically switched based on the charging power. This allows even a small amount of excess PV power to be utilized.

- The *Fast Charge* mode always uses 3 phases.
- Your vehicle must support dynamic phase switching.

- The switching times depend on the wallbox and its internal logic.
- The phase change may take a few minutes.

4. Contact us

For support, please contact:

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Service phone: +49 (0) 371 45 85 68 - 100

E-mail service: symphon-e@heckert-solar.com