


# Alfen Charging Station

Version:2026.10.1

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# 1. Introduction

2026.10.1

In this guide, you'll learn how to configure the Alfen-Ladestation for the FEMS and integrate it into the FEMS. 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 FEMS.

# 2. Installation

## 2.1. Compatibility

The following models are compatible with FEMS:

- Eve Single S-line
- Eve Single Pro-Line
- Eve Single Plus

As of 2027, new installations of the Alfen Eve Single S-line are no longer permitted. This restriction applies only to this model.

## 2.2. Hardware

For hardware installation, please refer to official Alfen Knowledge Base.

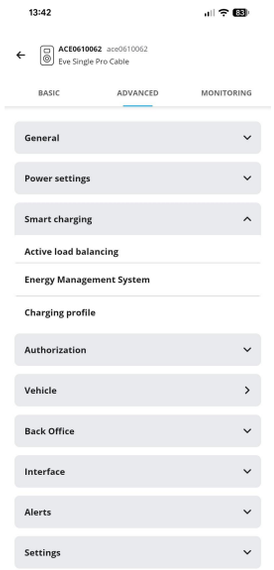
## 2.3. Settings via the Alfen Web Interface

- To control the Alfen charging station via FEMS, **Active Load Balancing** must be active.
- If **Active Load Balancing** is not enabled on the wallbox you purchased, it must be enabled via a license.
- **The license is not available through FENECON**. The license is provided by the wallbox manufacturer and can be purchased through the wallbox's distribution channel or online, if applicable.

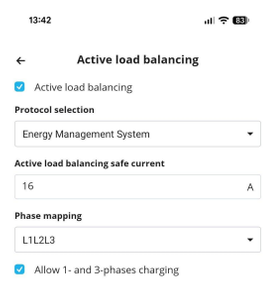
The settings for the Alfen charging station are demonstrated using the **MyEve** app as an example. You can also use the **Alfen ACE Service Installer**.

## 2.3. Settings via the Alfen Web Interface

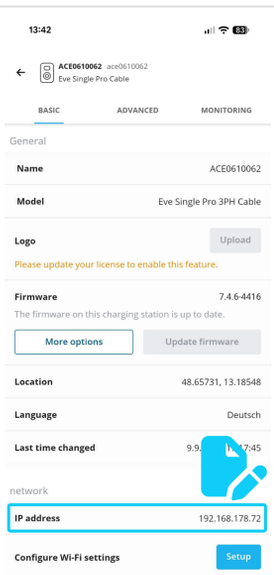
1. Open the **MyEve** app on your mobile device.
2. Tap the middle tab, *Advanced*.
3. Tap **Smart Charging › Dynamic Load Management**.




4. Check the box next to *Active Load Balancing* ☑.
5. Select *Energy Management System* from the drop-down menu below.
6. Phase mapping: L1, L2, L3
   → It is important that this matches the phase rotation set in Alfen Charging Station (see Phase rotation section).
7. Check the box next to *Allow 1- and 3-phase charging* ☑ to enable (automatic) phase switching.




8. Use " ← " to return to the main menu.
9. Tap the left tab: *Basic*.
10. Note down the IP address of the Alfen charging station on the network [file pen].



The configuration of the Alfen charging station is now complete. Next, integrate it into FEMS.

## 2.4. Integrating the charging station into FEMS

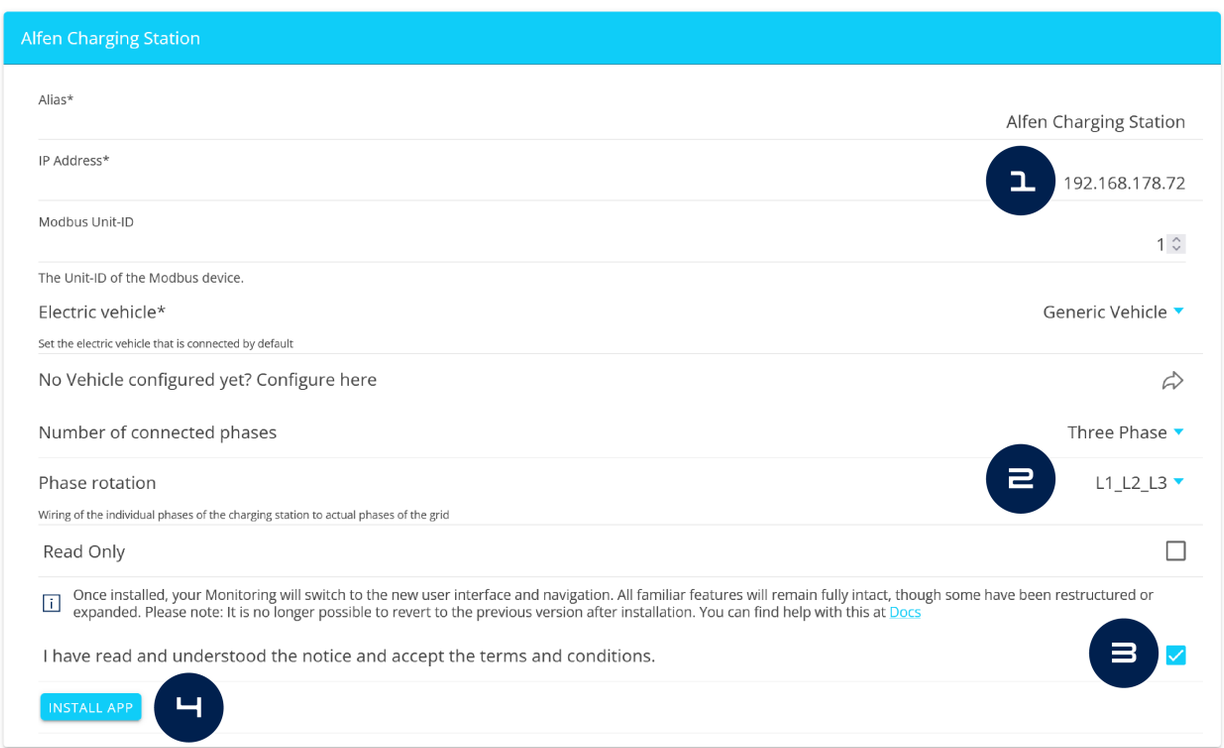
Once you have configured the settings for the charging station, you can integrate the charging station into FEMS.

- From the FEMS main menu, open the AppCenter via *Energy Journey*.

  Depending on the version of FEMS, the AppCenter can also be accessed via *Settings*.

- Prepare the FEMS App installation by following these instructions: General Installation Manual for FEMS Apps.

This brings up the following screen:




- Some of the input fields are pre-filled.
- The alias is the name under which the charging station appears in FEMS. You can choose any name you like, but it should be meaningful.
- Required fields are marked with an *.

1. Check the IP address. Does it match the IP address indicated in the charging station web interface? Edit the IP if necessary.
   a. Otherwise, the default values can be retained (e. g., port, Modbus unit ID).
2. Select the phase rotation. This setting must match the phase rotation of the charging sta-

tion.

a. The phase connection L1_L2_L3 is selected as standard.

3. Please double-check your entries and make sure they are correct. Otherwise, the app will not function properly. Accept the app's Terms of Use at ☑.
4. After you have configured the settings in FEMS, complete the installation by clicking **[ INSTALL APP ]**.

The charging station is now integrated into FEMS and can be controlled via the app.
In the AppCenter, at **[ EDIT APP ]**, you can adjust the app's configuration retroactively.

If you haven't yet switched to the new design of the FENECON app, it will become active when you install the FEMS App Alfen Charging Station.

This will update the FEMS user interface to the new design, which significantly improves the app's usability, especially on mobile devices.

For more information about the new design, see the documentation on the new design.

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

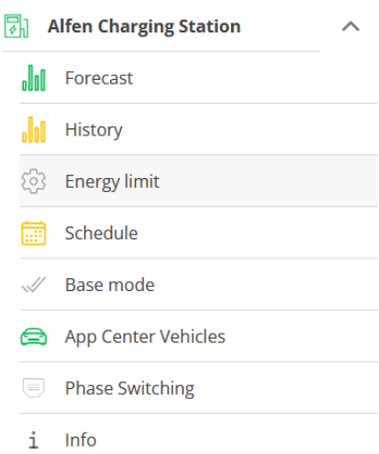
If you use the app to navigate to multiple charging stations, they will also be automatically updated to the new design.

# 3. How to Use Alfen Charging Station

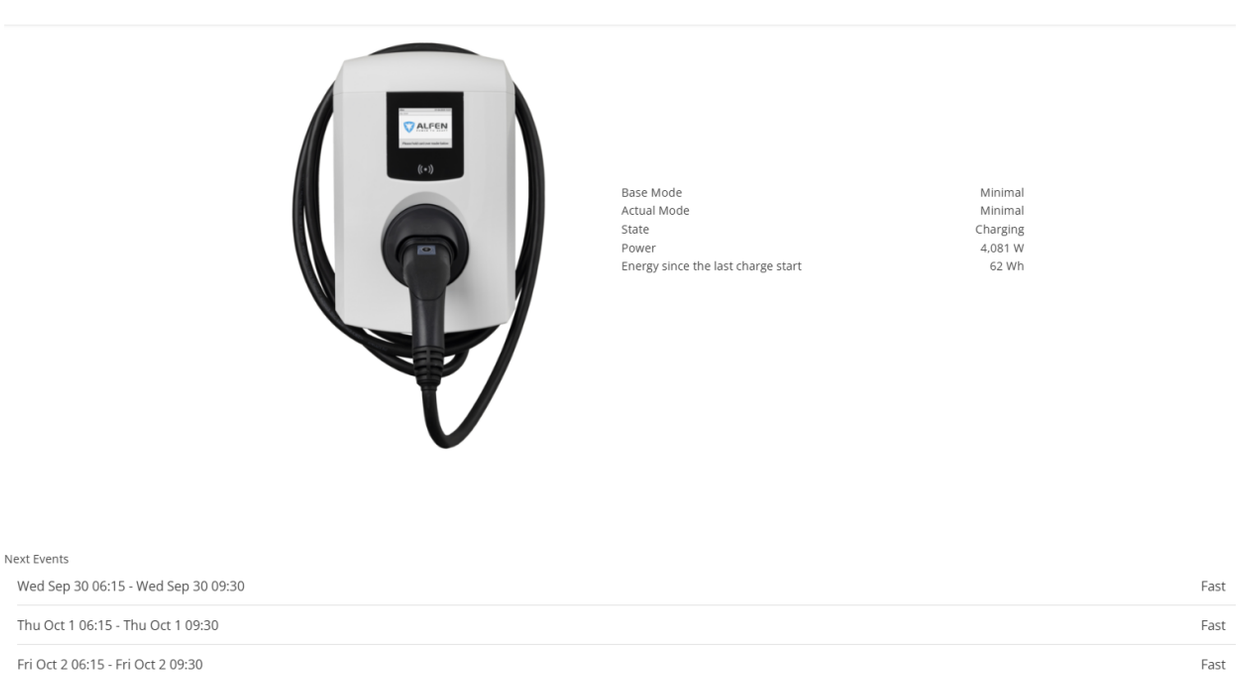
## 3.1. Charging stating main window

A charging station is displayed in FEMS 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.

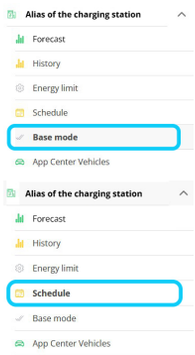



Depending on the submenu item selected, the main window displays different information and settings:




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.

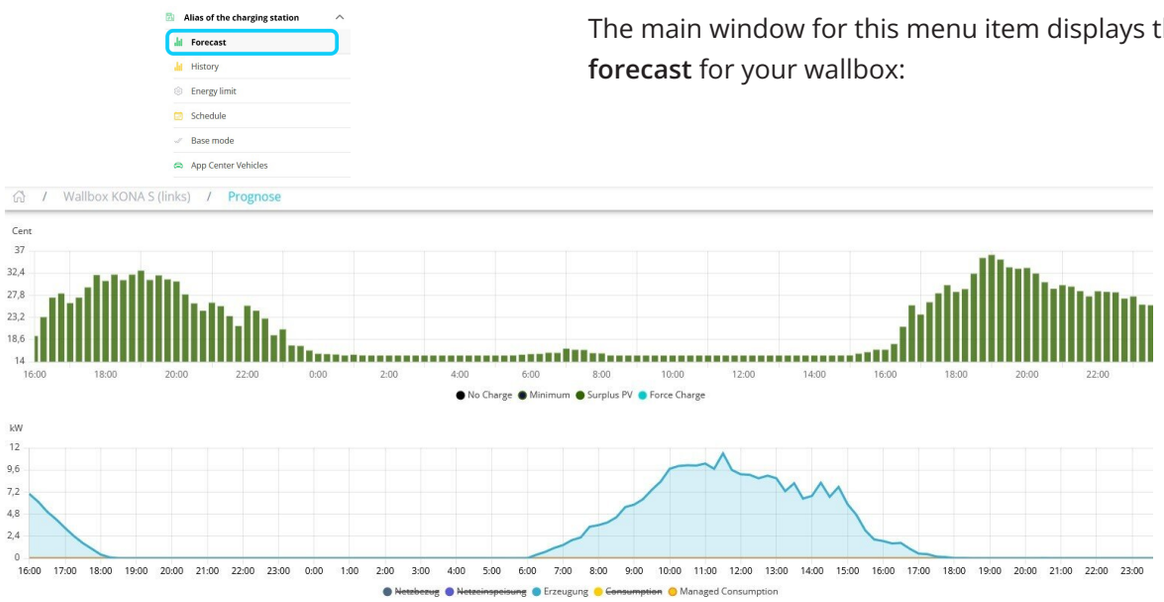



The **Base Mode** can be set via the submenu item Grundmodus.

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

Table 1. Explanation — Basic Mode and Active Mode

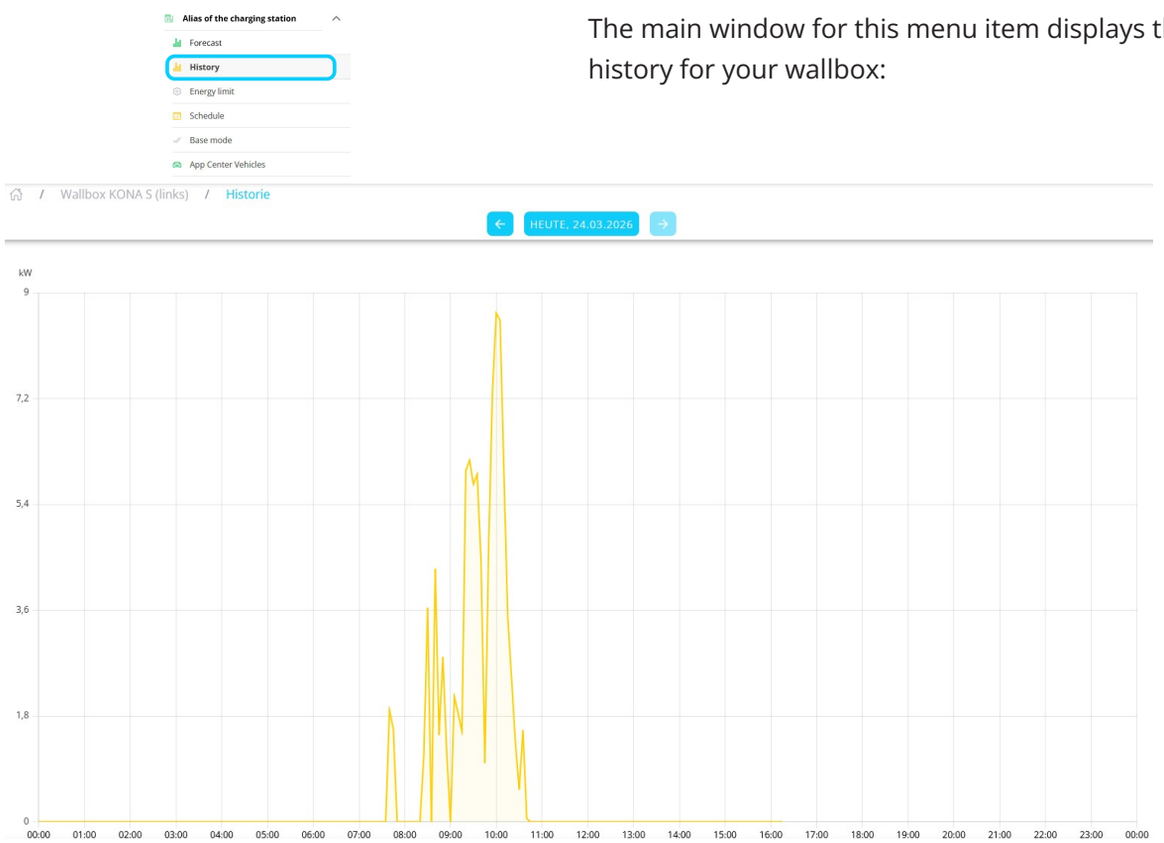
## 3.2. Forecast




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

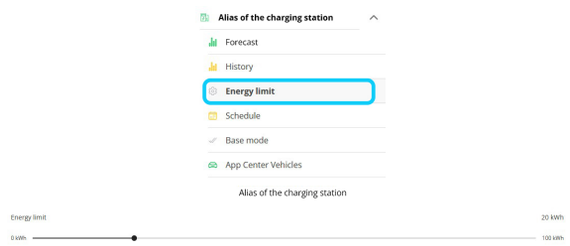
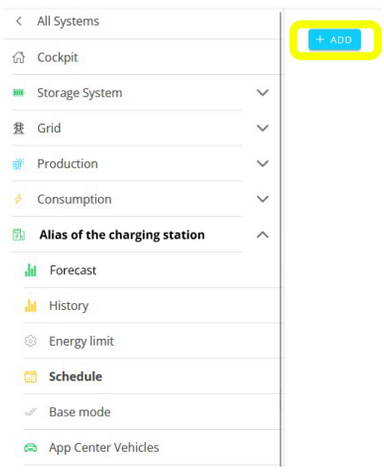
| | |
|---|---|
|  | Use this menu item to set an **energy limit** for charging your vehicle.<br><br>There is a slider for this in the corresponding main window.<br><br>• Energy limit **0**: The vehicle will continue charging without restriction until its battery is fully charged or **Base Mode** is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



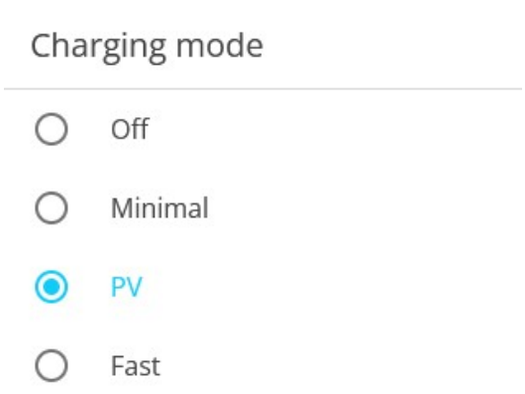

In the main window, click or tap **[ + ADD ]** to create a new task.

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 withdrawal 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).

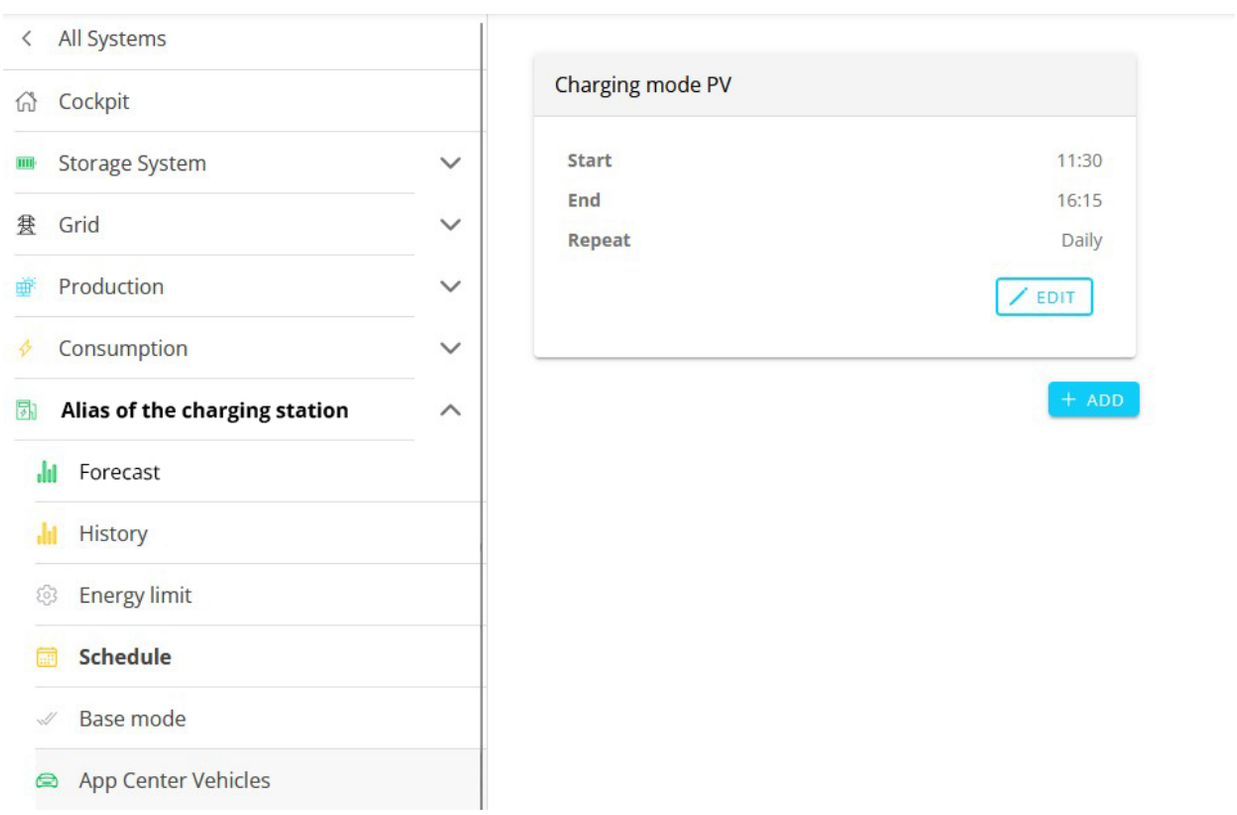



Image 1. Overview — Schedule with a created task

If you already have a task in the list, you can *EDIT* it to, e. g. adjust the time period or the charg-

ing 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:

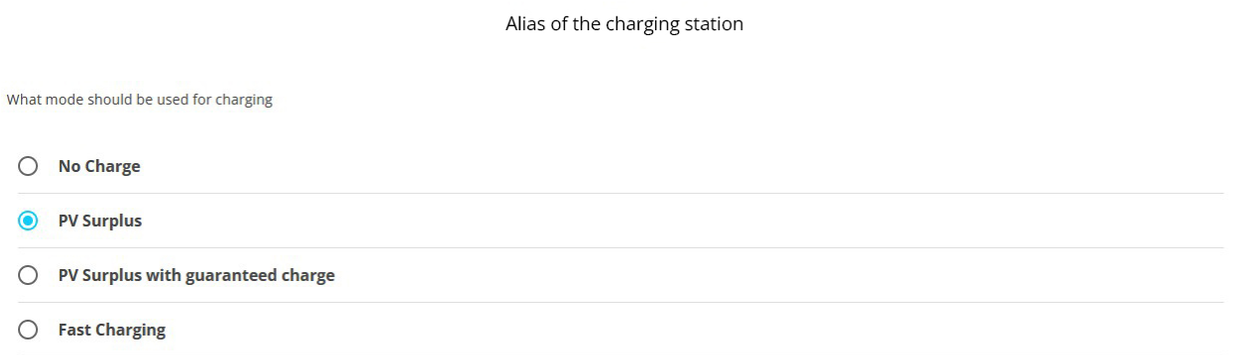



Image 2. Example — Overview — Base Modes

### 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

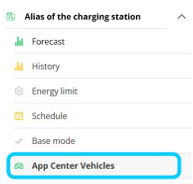
The *PV Surplus with Guaranteed Charging* mode **guarantees a minimum charging status for the vehicle**. If there is sufficient PV surplus, it is used. If there is no PV surplus, the vehicle is charged using grid withdrawal up to the minimum charging power.

### 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.

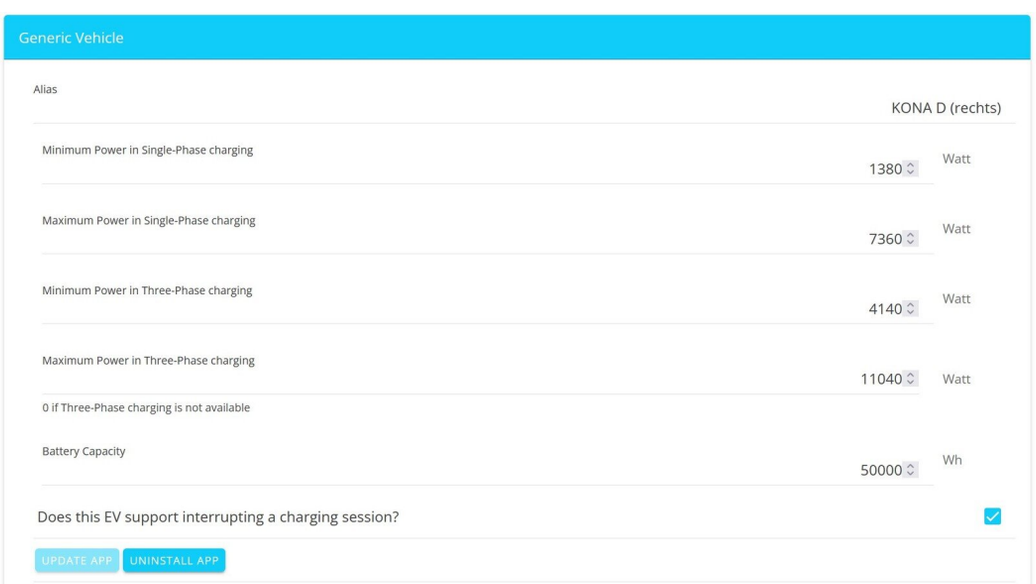
The main window displays the settings for the *Generic Vehicle* app.

The *Generic Vehicle* app is automatically installed when you install FEMS App Alfen 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:

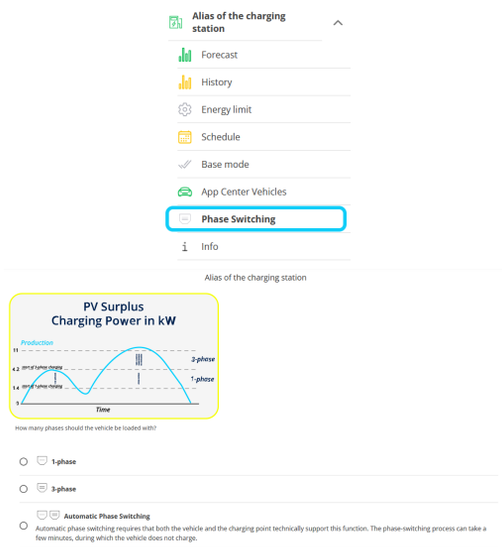



Once you have made the desired changes, save them by clicking **[ UPDATE APP ]**.

These settings provide FEMS 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:

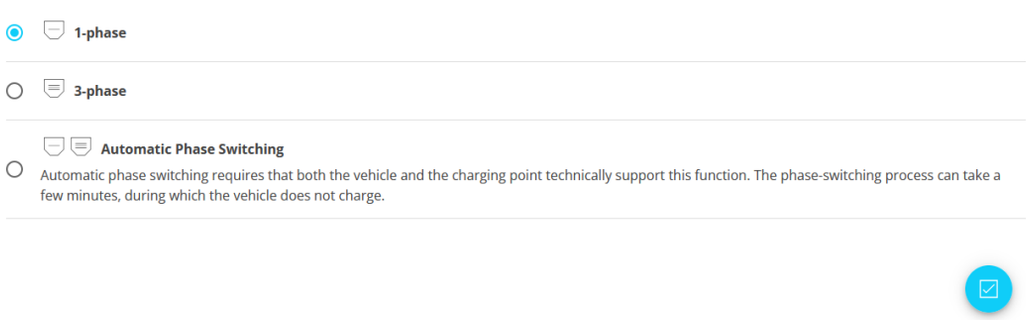



Tap or click the submenu item to access the following main screen.

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.

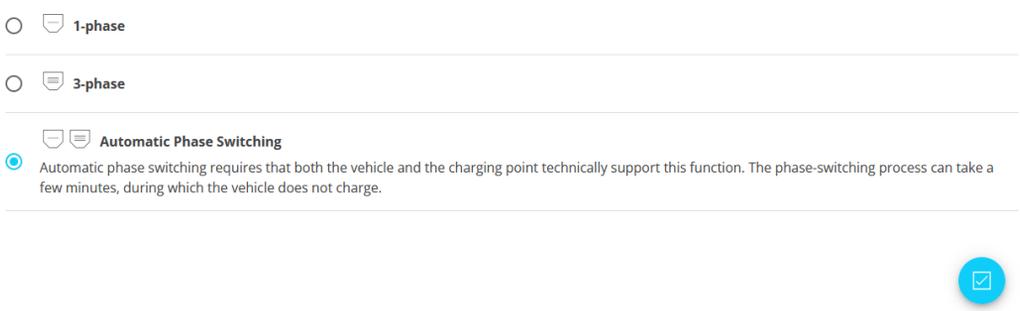
**Switching During Charging**:
When manually switching from single-phase to three-phase and vice versa, the hardware undergoes a 30-second switching process each time.

- 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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