

Installation and Configuration Manual — KEBA KeContact P30 x-series

Version:2026.10.1

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1. Introduction

1.1. Legal provisions

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Subject to changes and printing errors!

1.2. Qualification of the installing electrician

A qualified electrician is a person who has the necessary experience and training:

- Setting up, switching on, switching off, disconnecting, short-circuiting and repairing circuits and devices
- Standard maintenance and use of protective devices in accordance with current safety standards
- First aid/emergency care
- Current knowledge of local regulations, standards and guidelines

2. Product description

As of 2027, new installations of the KEBA KeContact P30 x-series are no longer permitted.

3. Commissioning



To install the KEBA charging station, please follow the instructions in the "KeContact KC-P30 Charging Station Installation Manual."
Installation Manual — KEBA KeContact KC-P30



You should also read and familiarize yourself with the "Configuration Manual" for the x-series:
Configuration Manual — KEBA KeContact P30 x-series

This quick guide refers to the original user manuals.
It serves as an installation aid for qualified electricians in the area of communication interfaces, but is not a substitute for studying the user manuals.

3.1. Ethernet connection

The network connection is made via the LSA terminal block X4.

Please note that the Ethernet connection X3 (here: RJ45) was designed as a service port. This is not suitable for a permanent, stable connection to the FENECON Energy Management System.

To connect to the LSA terminal block X4, the network cable must be disconnected and the cables connected to pins 1-4.
The assignment type of the customer network must be observed.

Pin	-568A Pair	-568B Pair	-568A Color	-568B Color
1 (Tx+)	3	2	white/green stripe	white/orange stripe
2 (Tx−)	3	2	green/white stripe or green	orange/white stripe or orange
3 (Rx+)	2	3	white/orange stripe	white/green stripe
4 (Rx−)	2	3	orange/white stripe or orange	green/white stripe or green

Image 1. Diagram for the network connection

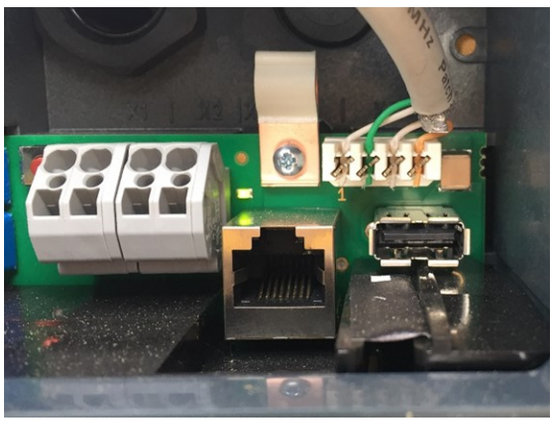


Image 2. Example of the network connection

There are two ways in which your KEBA KeContact P30 x-series can obtain an IP address. The setup via static IP address or via DHCP is described below.

In a network, IP addresses are typically assigned automatically via DHCP. In many cases, this is handled by the internet router, e. g. a router such as a FRITZ!Box. This can cause communication between FEMS and the charging station to fail. To prevent this, IP addresses can be set to static values.

3.2. Assigning an IP address via DHCP

We recommend setting up via a DHCP server (here: Dynamic Host Configuration Protocol) from the second charging station onwards.

After connection to the customer network, the wallbox is assigned an IP address using DHCP. This IP address can be determined in the DHCP server, e. g. the router, or can be read on the display when the wallbox is started.

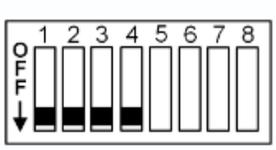
DIP switch	Function	Illustration
DSW2.1 **DSW2.2** **DSW2.3** **DSW2.4**	Not valid for P30 x-series. By default, the charging process is carried out independently by the charging station without a higher-level control system. The charging station attempts to obtain an IP address via a DHCP server, if needed. This also corresponds to the basic settings for charging stations without a network connection.	

Image 3. Setting the lower switch panel for DHCP

An IP address can only be assigned via DHCP if the DIP switches of the second switch panel D2.1 to D2.4 are set to "OFF".

To be able to access the wallbox via its IP address for testing purposes, your computer must be in

the same network. Open an internet browser and enter the IP address identified.

Example: `http://123.123.123.123`

After entering your login data (included in the scope of delivery), a website opens that looks like this:

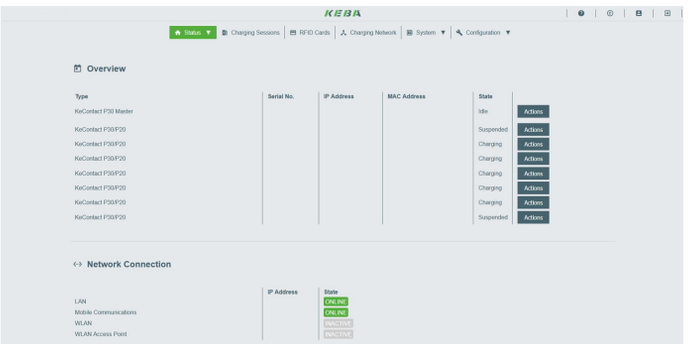


Image 4. KEBA software

The KEBA x-series web interface offers numerous configuration options. Among other things, you can manage RFID card permissions and generate an automatic charging report used for billing charging sessions. For more information, see the KEBA x-series configuration manual: Configuration Manual — KEBA x-series

3.3. Configuration of the DIP switches

Various settings such as IP assignment and control can be made via the DIP switches. In the following illustration you can see the two positions of the switches.

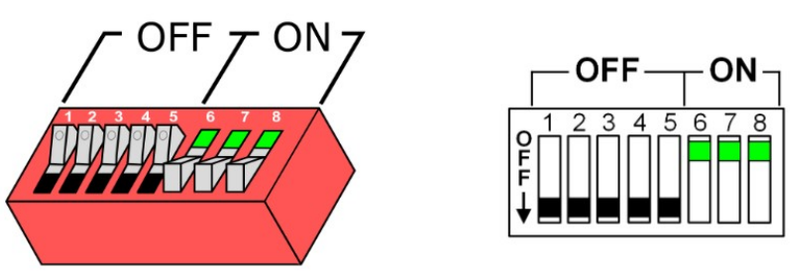


Image 5. DIP switch

The DIP switches can be accessed by removing the front cover. Here you will find two different switch panels, which are explained in more detail below.

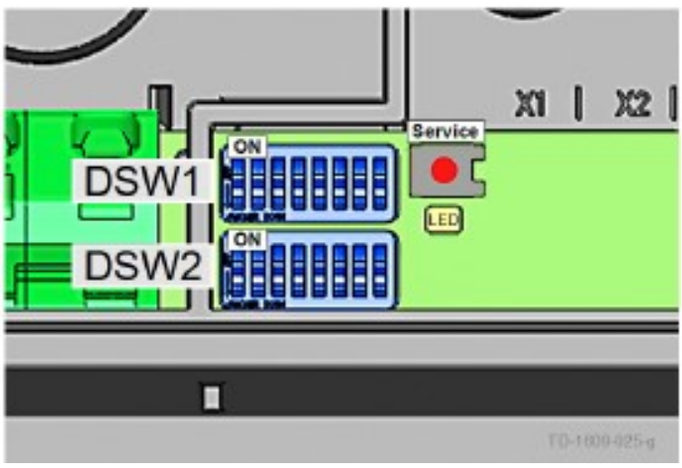


Image 6. DIP switch DSW

We differentiate here between the top panel "DSW1" and the bottom panel "DSW2".

3.3.1. Setting the charging station control functions

The first three DIP switches on the upper DSW1 panel are used to control and forward signals from the charging station.

Of these three switches, we only need D1.3, which is used to activate the smart home interface via UDP, allowing the FEMS to set the charging specifications for the charging station via the UDP protocol. D1.1 and D1.2 remain in the "OFF" position.

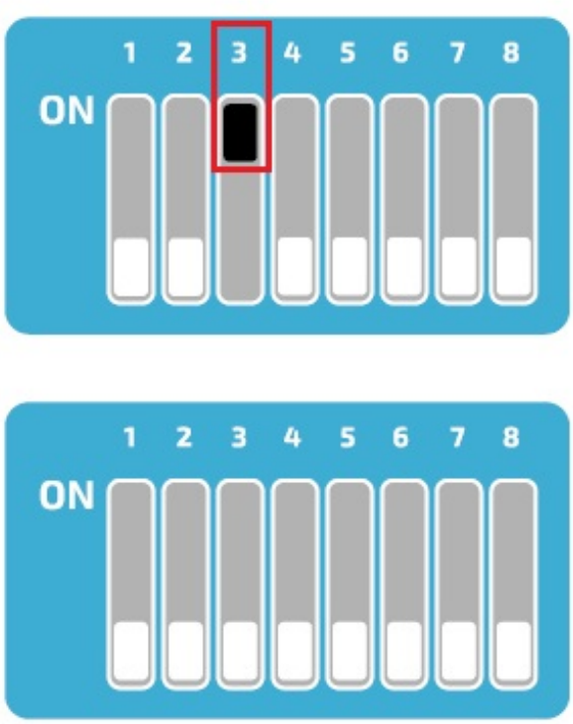


Image 7. Setting the upper switch bar for UDP

3.3.2. Setting the permissible amperage

DIP switches D1.6 - D1.8 are used to set the permissible current, which determines the maximum charging power of the charging station, provided the vehicle to be charged supports this charging power.

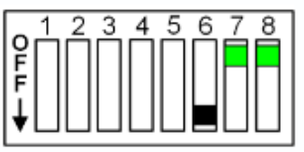
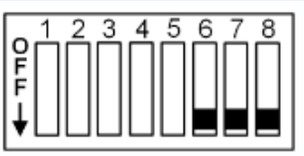
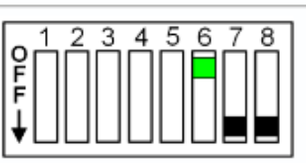
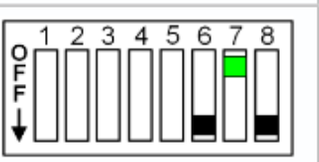
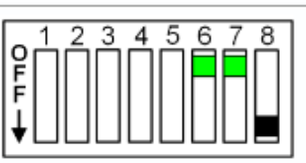
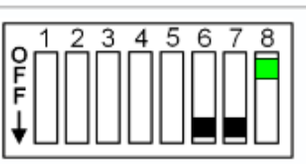
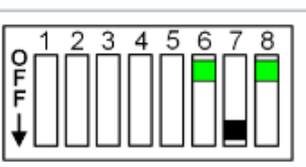
DIP switch	Amperage	Illustration
DSW1.6 DSW1.7 DSW1.8	8 A Setting available from software ≥1.18.00 / firmware ≥3.10.56 (for details see „10.3 Display software/firmware version“)	
DSW1.6 DSW1.7 DSW1.8	10 A	
DSW1.6 DSW1.7 DSW1.8	13 A	
DSW1.6 DSW1.7 DSW1.8	16 A	
DSW1.6 DSW1.7 DSW1.8	20 A	
DSW1.6 DSW1.7 DSW1.8	25 A	
DSW1.6 DSW1.7 DSW1.8	32 A	

Image 8. Setting the amperage

3.3.3. Further DIP switches

However, all other DIP switches have no function in conjunction with the FEMS or can influence the connection, e. g. D2.8.
They therefore remain in the "OFF" switch position after commissioning.

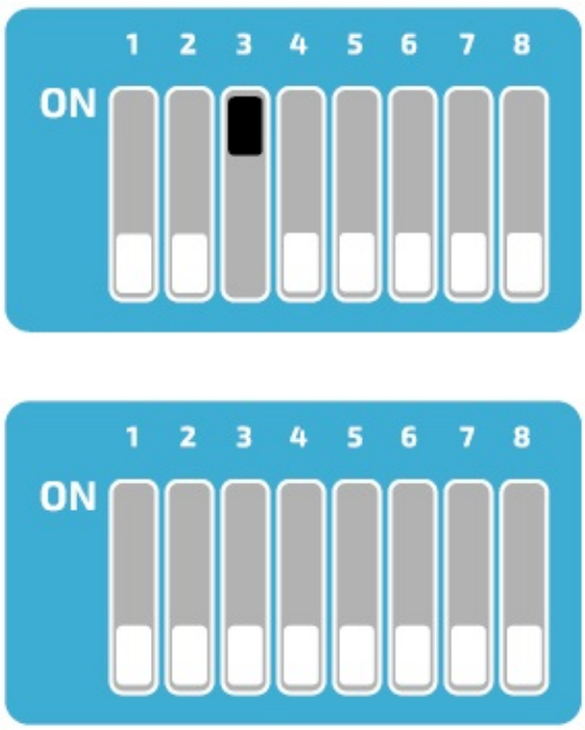


Image 9. Setting the DIP switches for a wallbox

3.3.4. Charging network

The Keba KeContact P30 **c-series** can be used as a slave in a charging network with a Keba KeContact P30 **x-series**. In this case, the **x-series** takes over the management of the RFID authorization. To enable communication between the charging stations, the DIP switch D2.5 must be activated on all charging stations (**x-series and c-series**). In addition, the **c-series** must have received a dynamic IP address from the DHCP server. If there is no charging network (only one charging station is available), the DIP switch D2.5 does not need to be activated.

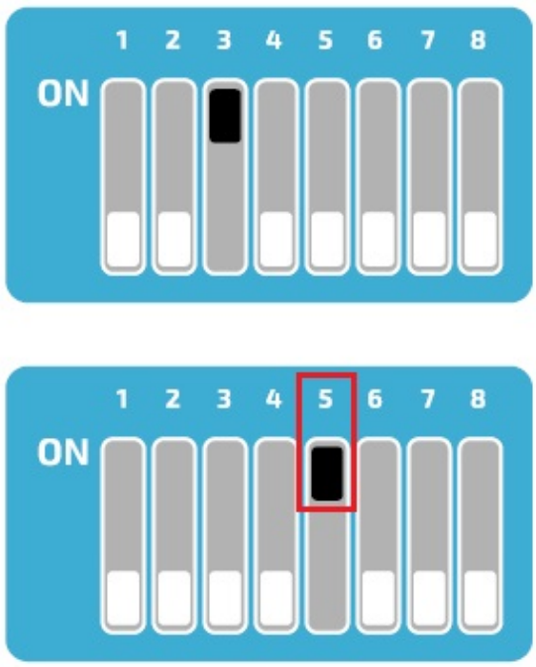


Image 10. Setting the DIP switches for a charging network

3.4. § 14a of the Energy Industry Act (EnWG)

From 01/01/2024, all wallboxes & charging stations in the private sector must be controllable by the grid operator in accordance with § 14a of the German Energy Industry Act. Depending on the manufacturer, your wallbox can be dimmed to the required 4.2 kW charging power and/or switched off for the required period of time.

Currently, the proper dimming of wallboxes & charging stations is not achieved via the FENECON energy management, but via solutions provided by the wallbox manufacturers.

Prerequisites

All §-14a-compliant KEBA KeContact Series that can be integrated into the FEMS Online Monitoring are listed below.

Wallbox model type	§-14a compliance (e. g. dry contact X1, Modbus TCP, OCPP)
KEBA KeContact P30 X-Series	✅
KEBA KeContact P30 C-Series	✅
KEBA KeContact P40	✅

Table 1. 14a-compliant KEBA KeContact Series models

A KEBA KeContact can currently be properly integrated into the FENECON Energy Management System via the potential-free contact X1.

Connection of the control box

The device is configured via the potential-free contact X1 of the compatible KeContact charging station.

Connect the control box to the input and output terminals of the potential-free contact X1 as shown in the Circuit diagram for the potential-free contact X1.

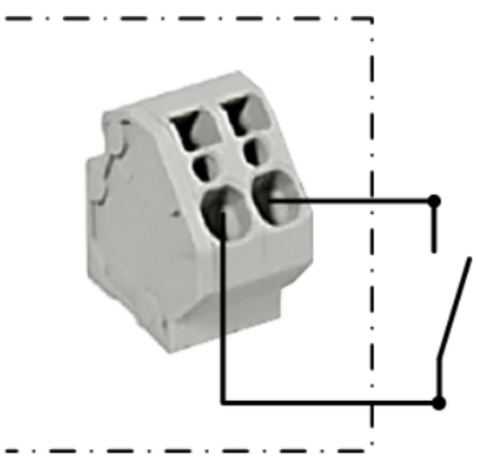


Image 11. Circuit diagram for the potential-free contact X1

To enable control by external components (here: control box), the DIP switch D1.1 must be set to "ON".

The wallbox then needs to be restarted.

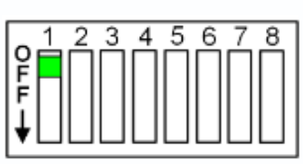
DIP switch	Function	Illustration
DSW1.1	Using the external enable input X1 for starting a charging process. DSW1.1 ON: LCharging enabled when X1 is closed. Whether charging is enabled also depends on the RFID authorization. For details, see 7.4 Enable input X1. DSW1.1 OFF: Input X1 is not connected. For all device variants for Great Britain/United Kingdom, the factory setting must not be changed, as otherwise the tamper detection will no longer function correctly.	

Image 12. DIP switches for contact X1

Setting up the EnWG-compliant amperage

From software version 1.18 or firmware version 3.10.56, the available charging current for the KeContact P30 series can be set to 0 A or 6 A in accordance with EnWG using the DIP switches.

3.4. § 14a of the Energy Industry Act (EnWG)

In software version 1.17.2, the EnWG-compliant current was preset to 8 A. For more information, please refer to the KEBA KeContact manuals or the KEBA KeContact FAQ.

To reduce the charging current to a specific value, set DIP switch D2.6 to the desired position.

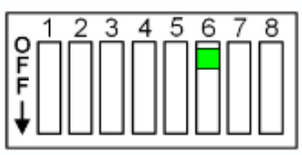
DIP switch	Function	Illustration
DSW2.6	Not valid for P30 e-series. When the enable contact X1 is opened or closed, the available charging current is reduced to a certain value. The enable input X1 must be activated (**DSW1.1** = ON). **DSW2.6** = OFF = value: **0A** **DSW2.6** = ON = value: **6A** (valid from software ≥1.18.00 / firmware ≥3.10.56, older versions use **8A**)	 Example: Current limitation ON

Image 13. Charging current via DIP switch D2.6

Activating DIP switch D1.1 results in new dependencies for starting a charging process using RFID authorization.

RFID	DSW 1.1	Description
Off	**OFF**	Permanent charging enabled – charging is possible at all times.
Off	**ON**	Charging enabled when X1 is closed.
On	**OFF**	**P30 a-seriesb-series and c-series (without charging network)** Charging enabled when X1 is closed **OR** RFID authorization is correct. The state of X1 is no longer checked during the charging process. The charging process can only be ended early using an RFID card. *If no RFID cards have been taught in, charging is possible at all times, whether X1 is open or closed.*
On	**ON**	**P30 a-seriesb-series and c-series (without charging network)** Charging enabled when X1 is closed **AND** RFID authorization is correct. *If no RFID cards have been taught in, charging is enabled when X1 is closed.*
On	**OFF**	**P30 c-series (in a charging network) and x-series** Charging enabled when RFID authorization is correct. *Charging is not possible without an RFID card.*
On	**ON**	**P30 c-series (in a charging network) and x-series** Charging enabled when X1 is closed **AND** RFID authorization is correct. *Charging is not possible without an RFID card.*

Image 14. Requirements for initiating a charging process

The configuration is now complete.

4. Install FEMS App KEBA KeContact P30 x-series

In the FEMS App Center you will find all installable FEMS Apps — such as the FEMS App KEBA KeContact P30 x-series.



The user manual FEMS App Center provides detailed instructions on how to use the FEMS App Center. It also explains how to register and redeem a license key.

Then follow the instructions in the FEMS App installation wizard on your KEBA KeContact P30 x-series.

4.1. Installation wizard

You will then be taken to the installation wizard for FEMS App KEBA KeContact P30 x-series.



Please select the correct series for your KEBA KeContact under Product series.

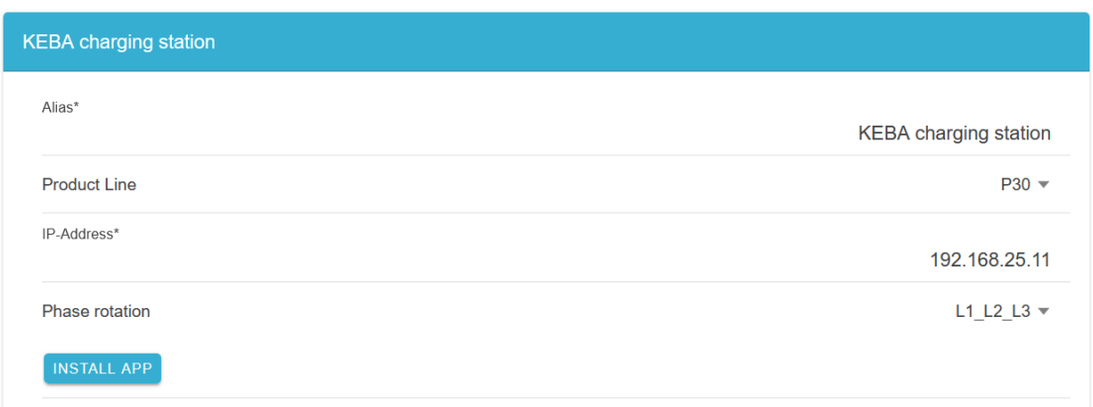


Image 15. App installation — Variant 2: Step 7

The KEBA KeContact P30 Series is selected as standard.

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



Mandatory fields are marked with *



Check your entries and make sure that they are correct. Otherwise the respective app will not work properly!

In the next step, you can set a phase rotation.



Please note that phase rotation is only included from FEMS release 2024.11.2 or later.

The phase connection L1_L2_L3 is selected as standard.

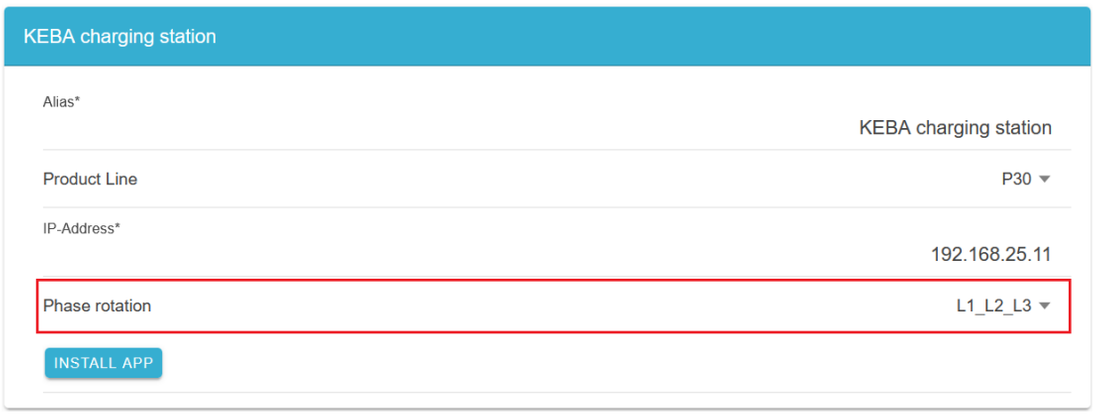


Image 16. App installation — Phase rotation: Step 1

If your phase connection differs from this, you can select a different phase connection using the drop-down button.

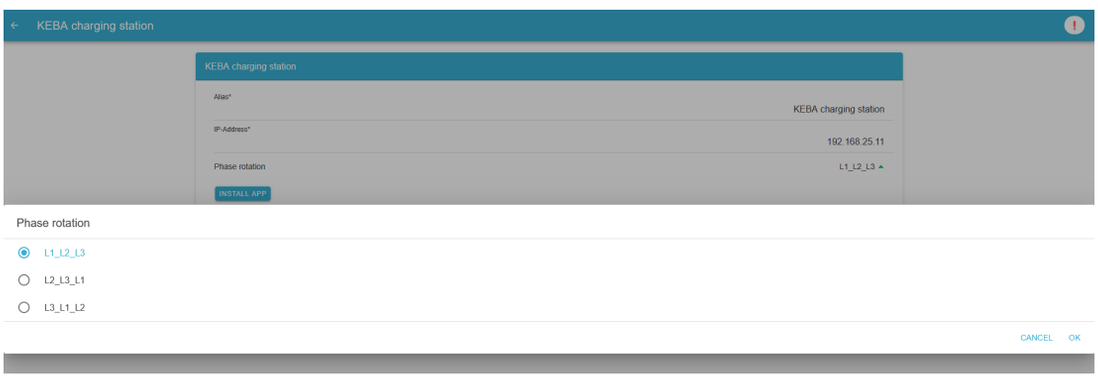


Image 17. App installation — Phase rotation 2: Step 2

Confirm with "OK".

Then click on "Install app".

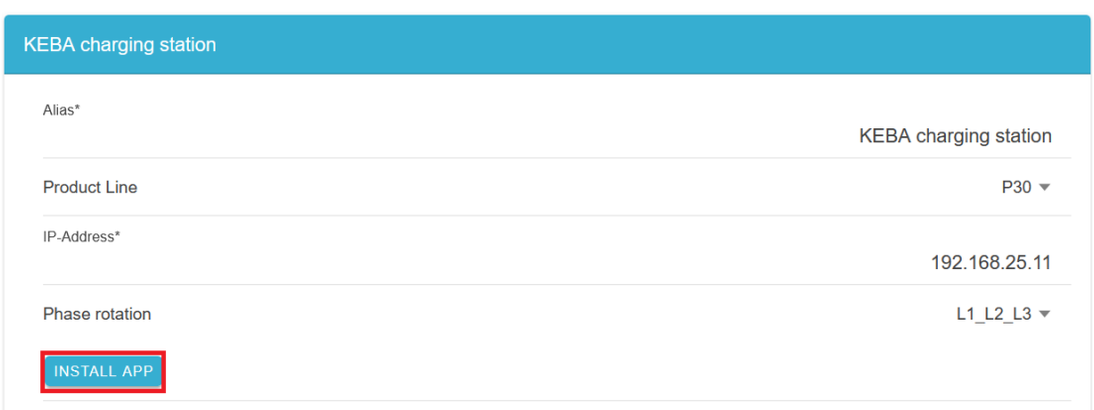


Image 18. App installation — Variant 2: Step 8

Once the installation process is complete, the new app appears in the overview of the FEMS App Center in the "Installed" category.

The FEMS App KEBA KeContact P30 x-series has been successfully installed.

5. Phasenumschaltung bei der KEBA KeContact P30 x-series

Für die (automatische) Phasenumschaltung muss das Hardwaremodul **KeContact S10 Phase Switching Device** installiert und korrekt konfiguriert sein.

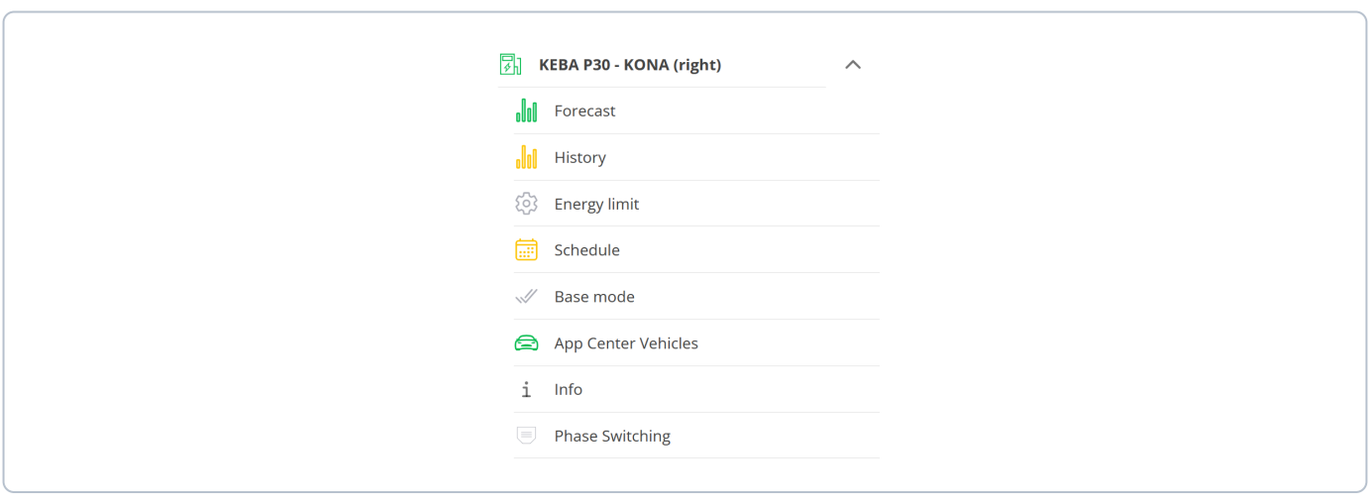
Bitte beziehen Sie sich auf die Original-KEBA-Dokumentation für die Installation und Konfiguration des **KeContact S10 Phase Switching Device**.

6. How to Use Installation and Configuration Manual — KEBA KeContact P30 x-series

6.1. 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.



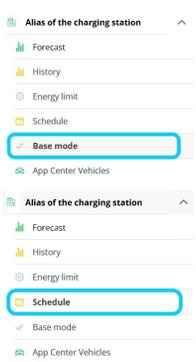
Depending on the submenu item selected, the main window displays different information and settings:



Base Mode	PV
Actual Mode	Off
State	Charging stopped by vehicle
Power	0 W
Energy since the last charge start	0 Wh

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.

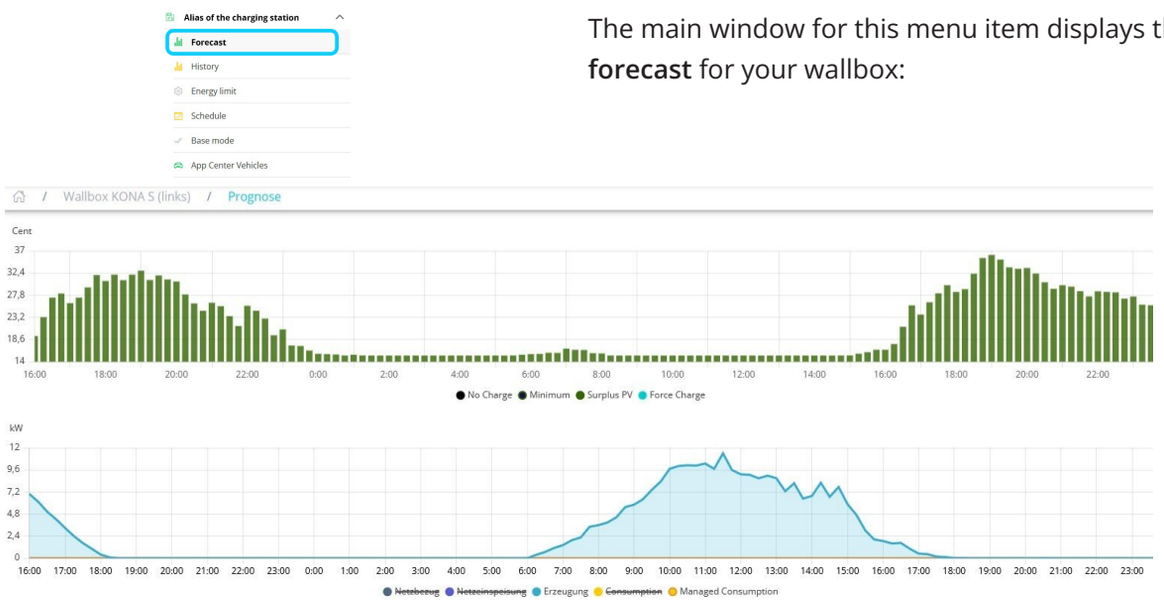


The **Base Mode** can be set via the submenu item {charging-station-base-mode-xref}.

Active Mode can be set via the submenu item {charging-station-task-scheduling-xref}.

Table 2. Explanation — Basic Mode and Active Mode

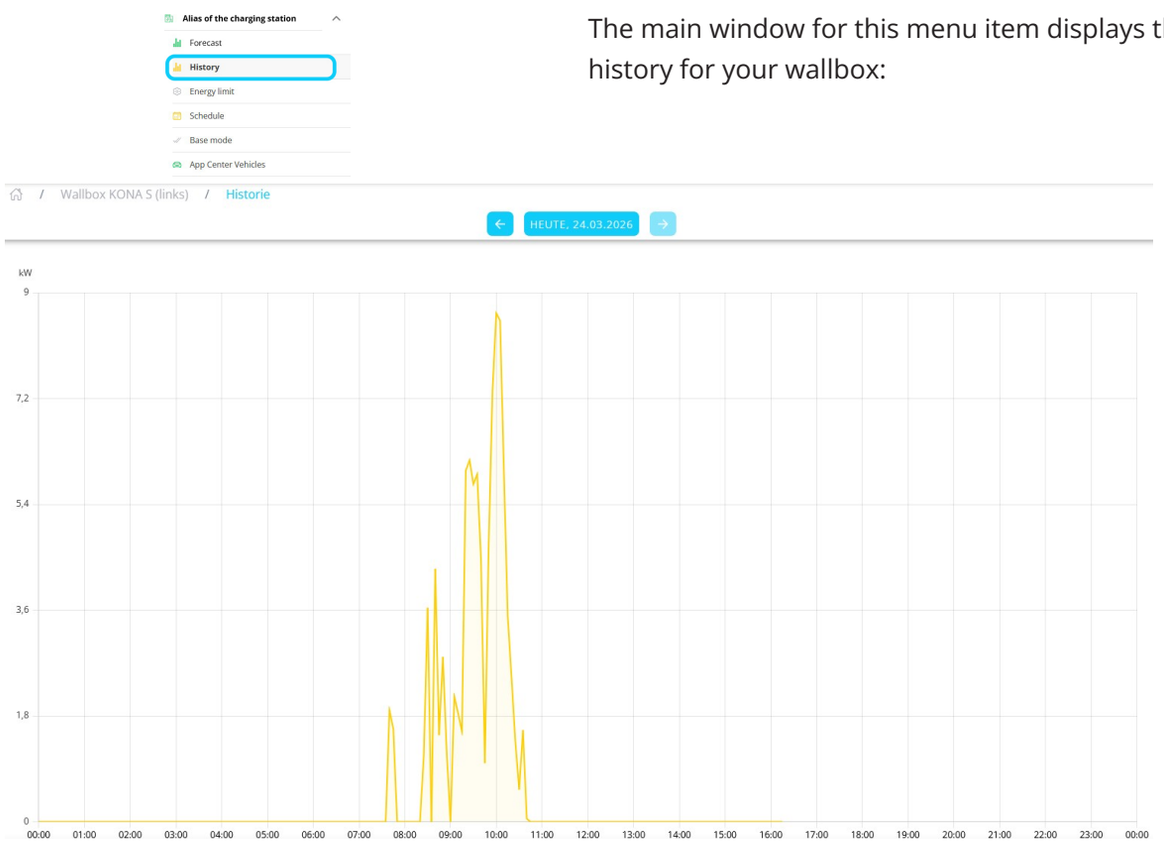
6.2. Forecast



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

Table 3. Explanation — Forecast

6.3. History



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

Table 4. Explanation — History

6.4. Energy limit

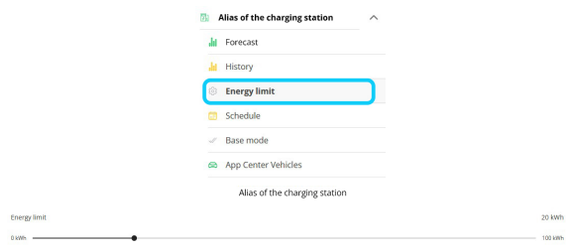
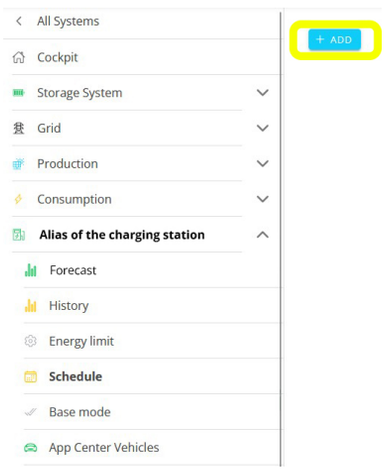
	Use this menu item to set an **energy limit** for charging your vehicle. There is a slider for this in the corresponding main window. • Energy limit **0**: The vehicle will continue charging without restriction until its battery is fully charged or **Base Mode** is set to *Off*. • Energy limit **20**: 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 5. Explanation — Energy limit

6.5. 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.



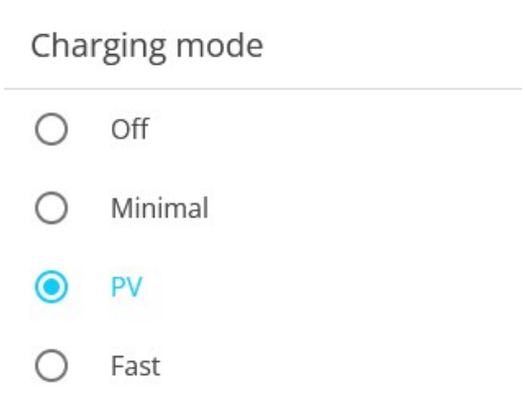
In the main window, click or tap **[+ ADD]** to create a new task.

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).

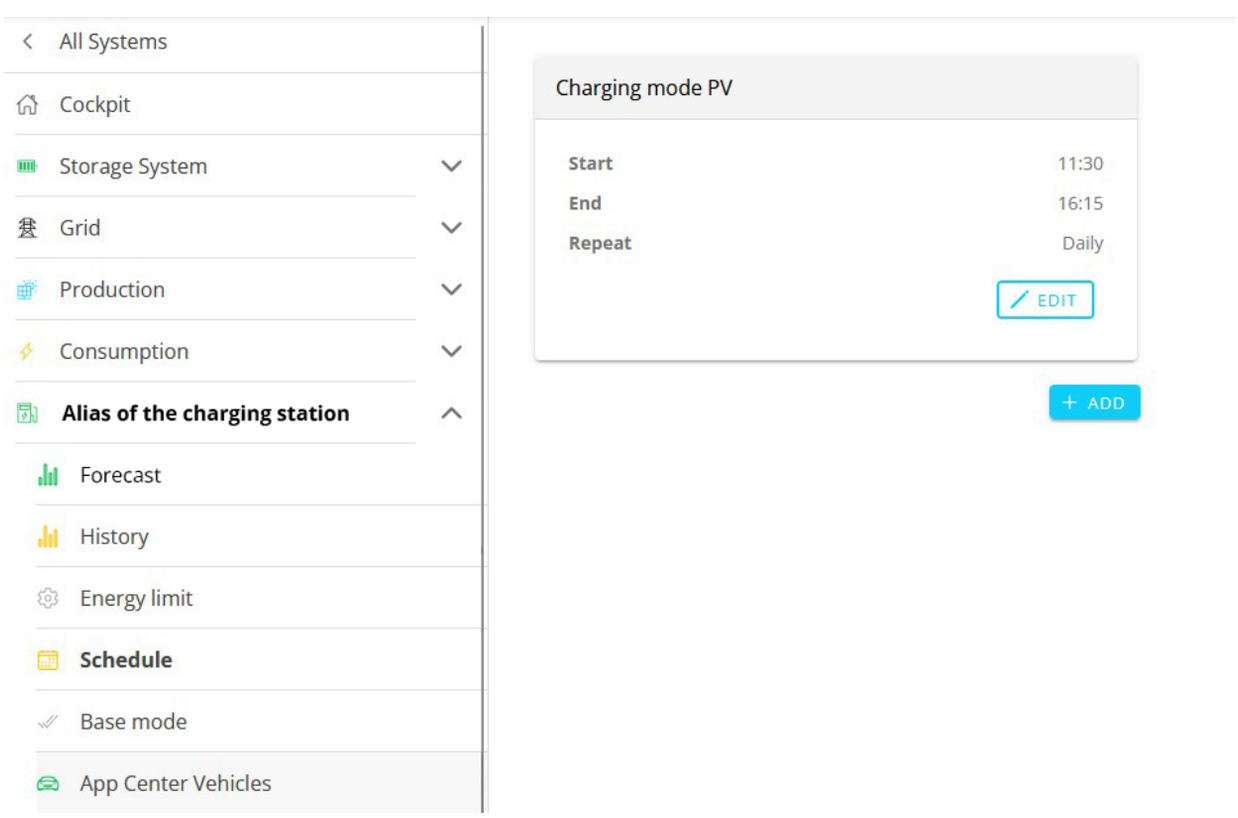


Image 19. Overview — Schedule with a created task

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.

6.6. Base mode

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

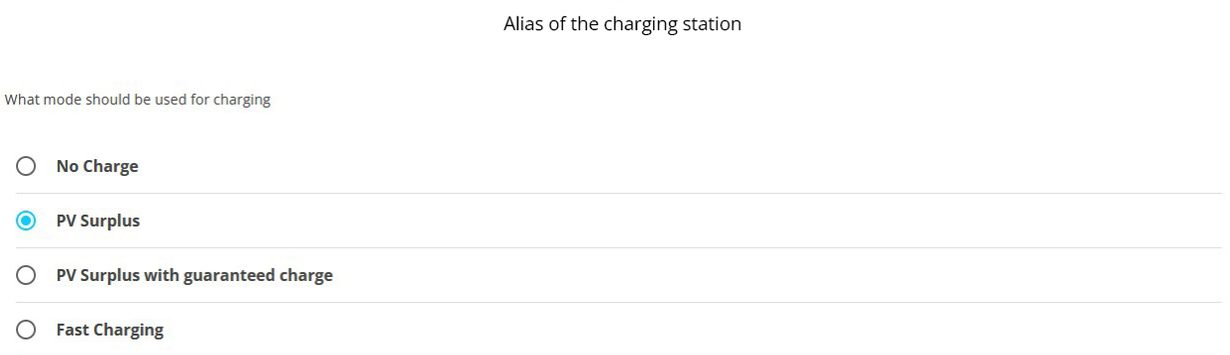


Image 20. Example — Overview — Base Modes

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

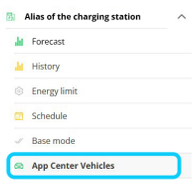
The *PV Surplus with Guaranteed Charging* mode **guarantees a minimum charging status for the vehicle**. If there is sufficient PV surplus, it is used. If there is no PV surplus, the vehicle is charged using grid withdrawal up to the minimum charging power.

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.

6.7. App Center Vehicles



Use this menu item to configure vehicle-specific settings.

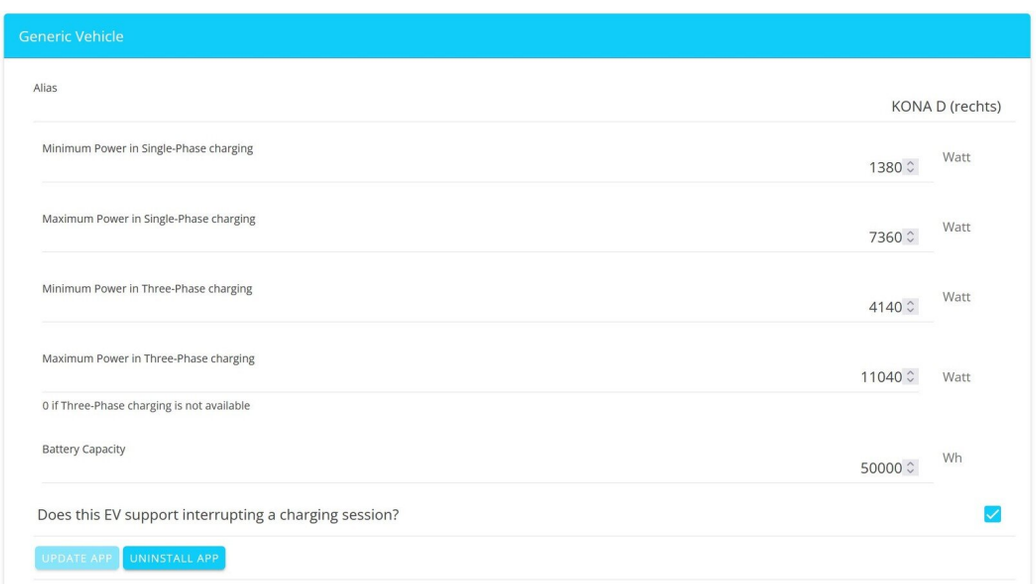
The main window displays the settings for the *Generic Vehicle* app.

The *Generic Vehicle* app is automatically installed when you install FEMS App KEBA KeContact P30 x-series.

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:

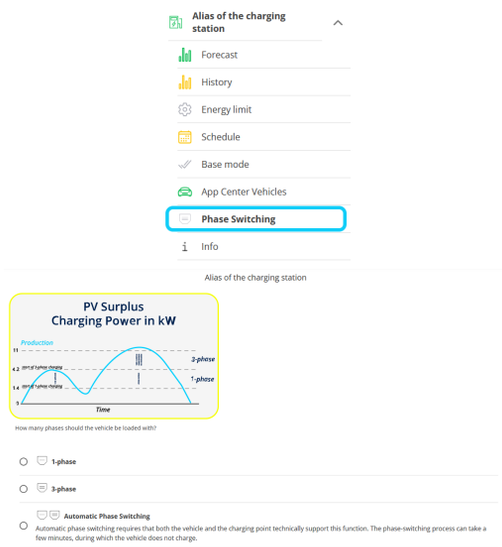


Once you have made the desired changes, save them by clicking **[UPDATE APP]**.

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.

6.8. 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:

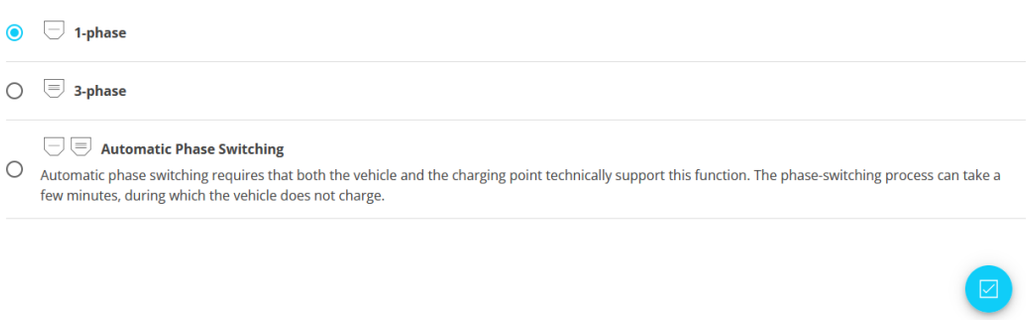


Tap or click the submenu item to access the following main screen.

The following options are available here:

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

6.8.1. 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.

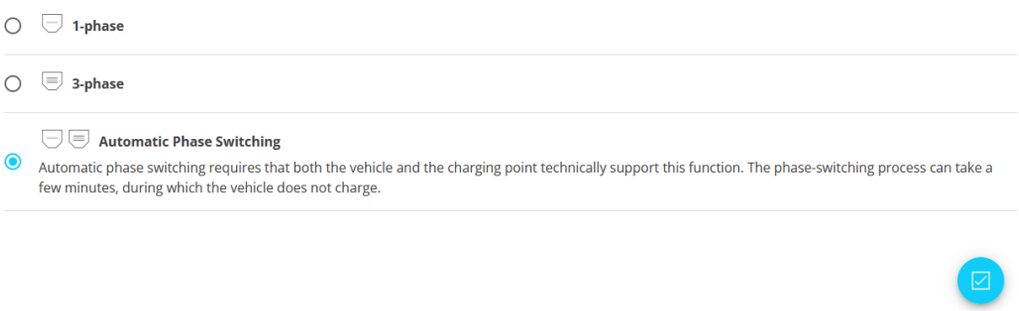
Switching During Charging:
When manually switching from single-phase to three-phase and vice versa, the hardware undergoes a 30-second switching process each time.

- 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.

6.8.2. 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.

7. Contact us

For support, please contact:

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Gewerbepark 6
94547 Iggensbach

Phone — Service: +49 (0) 9903 6280 0
E-mail — Service: service@fenecon.de

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