

Wallbox eM4

# Web Admin Manual





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Additional technical information

The technical data for the ABL eM4 AC chargers and additional accessories are collated in product-specific data sheets. You can download these documents from the ABL support website using the following link:



[www.ablmobility.de/en](http://www.ablmobility.de/en) > Support

 **NOTE**

**Displaying the additional information on a computer, tablet or smartphone**

Additional technical information is made available in the Portable Document Format (PDF).

- To display PDF files, you need the free Adobe Acrobat Reader or comparable software.

You can find further information about our product range on our website at [www.ablmobility.de/en](http://www.ablmobility.de/en). Please visit:




<https://www.ablmobility.de/en/>


Intended use

The ABL eM4 Web Admin is a browser-based application for configuring and maintaining the ABL eM4 AC chargers. The Web Admin application extends the functionality of the ABL Configuration App for iOS and Android and provides advanced access and additional insights into the configuration parameters of a single eM4 Wallbox or an eM4 charging group. The Web Admin is intended for qualified service technicians and system specialists. Various sections within the application are reserved for users with specific roles and are therefore password protected.

Information in this document

This document describes the configuration and maintenance options for the ABL eM4 AC chargers and shows how to set up the chargers via the Web Admin application. It is recommended that all working steps described in this document are carried out by service technicians and system specialists only.

Technical information	User	Specialist service technician
• Manual (this document)		
• Data sheets		

 **NOTE**

**Changes to functions and design features**

Please note that all technical details, specifications and design characteristics of the product may be changed without prior notice.

# Important information

## General

This manual describes all working steps required to configure and/or operate the product it concerns.

Certain sections of this manual are specially formatted for quick and easy reference.

- Descriptions listing equally valid options are indicated by bullet points.

1 Descriptions listing operating steps are numbered in chronological order.

→ Descriptions that require an additional step are marked with an arrow.



### DANGER

#### Indicates life-threatening electrical voltages

Sections marked with this symbol indicate electrical voltages that present a danger of loss of life or grievous bodily injury.

- Actions marked with this symbol must not be carried out under any circumstances.



### ATTENTION

#### Indicates important actions and further hazards

Sections marked with this symbol indicate further hazards that may result in damage to the product or to other connected components.

- Actions marked with this symbol must be carried out with special care.



### NOTE

#### Indicates important information for operation or installation

Sections marked with this symbol indicate further important information and features necessary for successful operation.

- Actions marked with this symbol should be carried out as required.
- Passages marked with this symbol contain valuable additional information.

# Introduction

## Purpose of the Web Admin application

The Web Admin application allows the user to access the configuration of individual eM4 chargers and eM4 charging groups, to view the installation status and to change certain parameters if the charger or charging group is not behaving as expected or the configuration needs to be adjusted due to changes in the local infrastructure. The Web Admin communicates exclusively with eM4 Controller wallboxes, not with the extender variants (configured as stand-alone charger or as part of a charging group): these are managed via the corresponding controller wallbox.

While the initial configuration of the chargers/charging group is set up during commissioning using the ABL Configuration App for iOS and Android (see **ABL eM4 installation manual**), the Web Admin application displays more details and allows for detailed configuration of the charging stations.

### ! NOTE

#### Process of commissioning

Once the commissioning process with the **ABL Configuration App** is complete, you can access the charger(s) via the Web Admin application by following the steps in this manual.

The main functions of the Web Admin application are:

- Monitoring of ABL eM4 charging stations during operation and diagnostics
- Group and settings overview
- Visualise charging point errors
- Update or change connectivity settings
- Management of RFID cards

## Connecting the eM4 to the Web Admin

The Web Admin is a browser-based application and therefore requires a computer with a wired or wireless connection to the charger/charger group network. Depending on the type of connection, the following options are available for accessing the Web Admin interface.

### ! ATTENTION

#### Connection to the eM4 Wallbox

- **Stand-Alone mode:** A single eM4 Controller Wallbox can be configured to run in stand-alone mode. For additional information, read the “**Configuring the Wallbox eM4 Single/Twin**” section in the **ABL eM4 Single/Twin Installation manual**.
- **Controller / Extender mode:** In this mode, a charging group with up to 30 chargers each can be set up and managed via the eM4 Controller Wallbox. For additional information on the features of a charging group, please refer to the “**Onboarding – Configuring the Controller / Extender operating mode**” section in the **ABL eM4 Single/Twin Installation manual**.

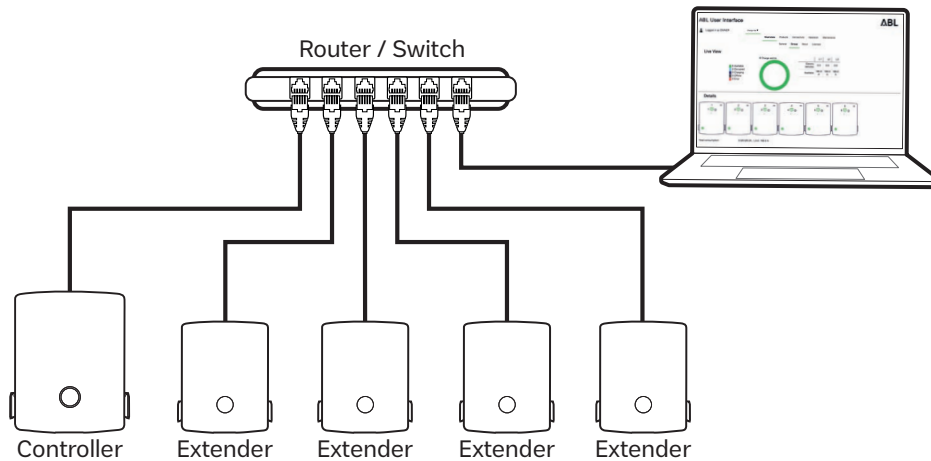
## Single eM4 Controller via wired connection

In this scenario, the computer has a wired connection with the network interface of a single eM4 Controller Wallbox.



- Open a browser on the computer and type in: **abl[serialnumber].local**
  - **Example:** For an eM4 Controller with the serial number **10325981**, enter **abl10325981.local** in the address bar.
- The Web Admin connects directly to the eM4 Controller Wallbox.

#### eM4 charging group via wired connection



In this scenario, the computer is connected with an eM4 charging group via an external router or switch.

- Open a browser on the computer and type in: **abl[serialnumber].local**
  - **Example:** For an eM4 Controller with the serial number **10325981**, enter **abl10325981.local** in the address bar.
- The Web Admin connects directly to the eM4 Controller Wallbox. All Extender wallboxes (up to 30 units) are then managed via the eM4 Controller Wallbox.

#### Single eM4 Controller via internal wireless (WiFi) connection

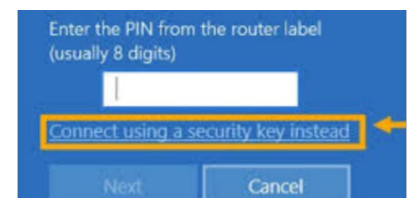


In this scenario, the computer is connected directly to the internal WiFi of the eM4 Controller Wallbox.

#### ATTENTION

##### Exception when connecting to the internal Wi-Fi

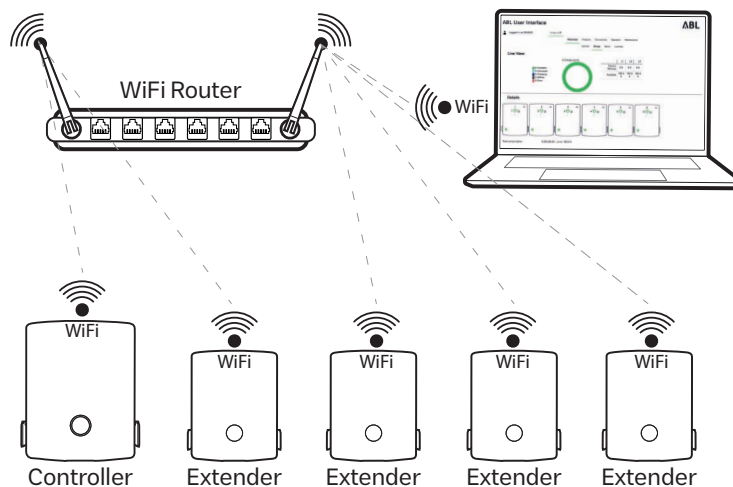
The windows theme will ask for 'PIN' instead of 'Password', so please ensure to enter the password.



- Connect with the local WiFi of the eM4 Controller Wallbox in the WLAN settings of the computer.
- Enter the password that has been created during initial commissioning with the ABL Configuration App.
- Open a browser on the computer and type in: **abl[serialnumber].local**

- **Example:** For an eM4 Controller with the serial number **10325981**, enter **abl10325981.local** in the address bar.
- The Web Admin connects wirelessly to the eM4 Controller Wallbox.

#### eM4 charging group via external wireless (WiFi) connection



#### ! NOTE

##### Exception when using an external Wi-Fi

If the eM4 Wallbox is connected with an external Wi-Fi, the internal Wi-Fi of the wallbox is deactivated. Therefore, to access the Web Admin in this scenario is to go through the external Wi-Fi

In this scenario, the computer and the eM4 Wallboxes are connected to the WiFi of an external router.

- Connect your computer to the external WiFi router that you used to connect your eM4 Controller Wallbox during commissioning with the ABL Configuration app.
- Open a browser on the computer and type in: **abl[serialnumber].local**
  - **Example:** For an eM4 Controller with the serial number **10325981**, enter **abl10325981.local** in the address bar.
- The Web Admin connects wirelessly to the eM4 Controller Wallbox. All Extender wallboxes (up to 30 units) are then managed via the eM4 Controller Wallbox.



# Customising the ABL User Interface preferences

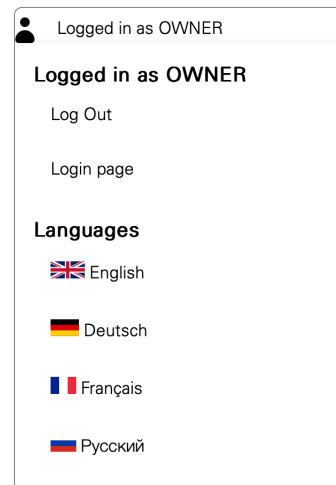
When the connection between the computer and the eM4 Wallbox is established, the Web Admin user interface is displayed in the browser. When you use the Web Admin for the first time, you should customise the default settings, which will then be activated immediately.

## Language selection

Various display languages are available for the Web Admin. Proceed as follows:

- 1 Click on the person icon in the top left of the user interface.
- 2 Click on your preferred application language:
  - English
  - German
  - French
  - Russian

The user interface will immediately switch to the selected language.



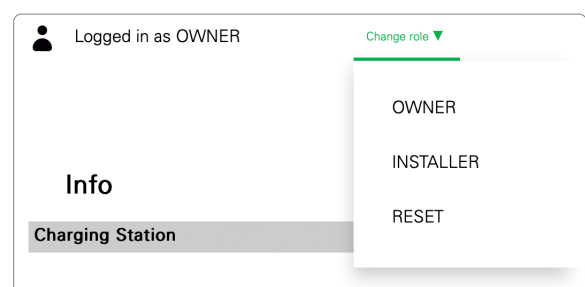
## Role selection

The Web Admin application offers a role-based concept that restricts the editing of selected parameters.

- **Owner**  
The Owner may view all information about the application and the installed charging stations, perform updates and set up data communication in the system.
- **Installer**  
The Installer makes fundamental changes to the system properties. This person must therefore be a qualified electrician, who, on the basis of their specialist training and experience, as well as their knowledge of the relevant regulations, can assess and carry out the working steps described in this manual and recognise potential hazards.

To select your specific role, proceed as follows:

- 1 Click on the **Change role** entry next to the person icon.
- 2 Click on your preferred role:
  - OWNER
  - INSTALLER



The user interface is immediately adapted to the selected role, which changes the visibility and accessibility of the tabs on the right.



## ATTENTION

### Disclaimer for Installer role

If the INSTALLER role is selected, the various settings can only be adjusted by an electrically qualified person. The disclaimer on the right will be displayed.



The settings on this page must only be adjusted by an electrically qualified person.



## NOTE

### Additional role

The Web Admin offers a third role (**mc**) that can only be activated in consultation with the customer service and then offers access to further setting options. For more information, please contact customer service.

# OVERVIEW

ABL User Interface

ABL

Logged in as INSTALLER

Change role ▼

OverviewProductsConnectivityOperationMaintenance

GeneralGroupAboutLicenses

Info

Charging Station

Serial number Charging Station:11367080

Serial number SBC:PT0243-00000847

Chargebox ID:ABL\_11367080

Software Version:2.2

Overall Status

Overall status:✔ System is OK.

Number of Charge Points:6

Chargepoints with error:0

The **Overview** tab shows details and the status of your current installation. For additional information, click on the sub-tabs for this view.

## Overview > General

The **General** view shows details of the eM4 Controller wallbox and the status of the charging group.

### Info > Charging Station

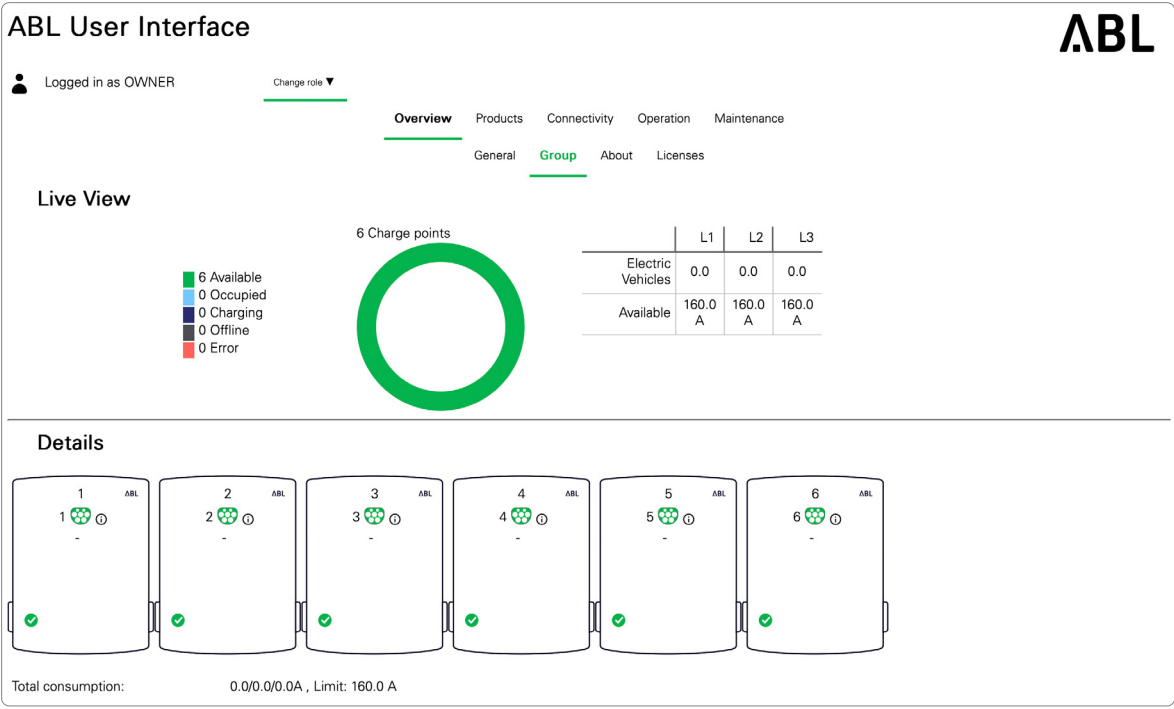
- **Serial number Charging Station:** Serial number of the eM4 Controller unit.
- **Serial number SBC:** Serial number of the main module of the unit.
- **Chargebox ID:** Specific name of the unit, required for backend purposes (OCPP)
- **Software Version:** Current software version of the main module. The version number is structured as follows (example: **2.1p2**):
  - 2 = Major release
  - 1 = Minor release
  - p2 = Patch release 2

Info	
Charging Station	
Serial number Charging Station:	11367080
Serial number SBC:	PT0243-00000847
Chargebox ID:	ABL_11367080
Software Version:	2.1p2

### Info > Overall status

- **Overall status:** Current status of the charging group
- **Number of charge points:** Number of all charging points within the charging group
- **Charge points with error:** Number of charging points in the charging group that have an **Error** status

Overall Status	
Overall status:	✔ System is OK.
Number of Charge Points:	6
Chargepoints with error:	0

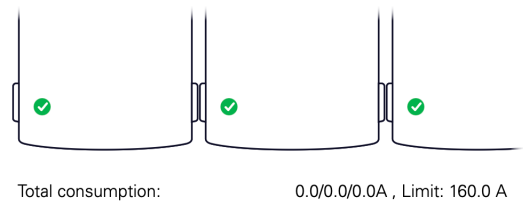


The **Live View** shows all eM4 chargers within the charging group with their current status and the consumption of all connected electric vehicles per phase.

Group > Details

This section shows a brief overview of the status of each charger within the charging group.

- **Total consumption:** Shows the total power consumption of all charging stations in the group per phase
- **Limit:** Static current limit set for all charging stations within the charging group



!

NOTE

Showing additional details for the eM4 charger

For more details on a specific charger, you can hover your mouse over the icon of that charger to display the following information (among other details):

- Status of each individual charging point
- Current amperage of the charging points
- Charging limits for the charging points

## Group > Information & System Status

The **Information** section in the lower part of the **Group** tab provides a summary of the charging group, the status and type of connection of the eM4 Controller to the backend and to the Extender chargers, as well as information about the Controller wallbox.

The **System Status** shows information about the system clock, the operating time of the system components and the date of the last access of the Web Admin to the charging group.

## Overview > About

The **License Notice** section contains information on the legal requirements for the software version, while **Detailed Software Versions** displays the current software versions of the charging stations.

## Overview > Licenses

This page shows the **List of Licenses Software Packages** used in the current software versions. If required, you can click on the marked links to get more information about each license.

# PRODUCTS

ABL User Interface

ABL

Logged in as INSTALLER

Change role ▼

Overview

Products

Connectivity


Operation

Maintenance


Installation

Diagnostics

Configuration of the Charging-Installation



 The settings on this page must only be adjusted by an electrically qualified person.


Group Settings

Current upper limit of the group installation: 160 A 


To set up load management related aspects, please refer to the [load management page](#). You need to be logged in as installer to choose the required load management mode and apply the relevant settings.

Product Settings

Pos.	Product	Product Properties Bus-Id/ Current Rating	Connector Properties Outlet-No./ Location/ Outlet-Name/ PhaseRotation	Actions
1	© 100000151 - Rev. 1 S/N: 	Bus-Id: Bus-Id: 1	1 right 123N	

Current upper limit of the product (LIM-PL-1), max. 32 A 

The **Products** tab shows details of the products and settings of each charging station in your group installation.

 **ATTENTION**

Changing the roles


While this page offers limited access when logged in as **OWNER** (mainly read-only), you can access advanced group settings such as the load management settings when logged in as **INSTALLER**.

- If necessary, change your current role using the **Change role** drop-down menu (see “Role selection” on page 9).


## Product > Installation

### Installation > Group Settings

Here, you can enter the static upper current limit for the group installation.

- Click the  icon on the right.
- Enter the desired upper current limit for the group installation and confirm the value by clicking ☒ or discard the setting by clicking ☐.

Group Settings


Current upper limit of the group installation: 160 A 

### Installation > Product Settings

The **Product Settings** section shows specific properties of all eM4 chargers within the charging group in chronological order (from left to right).

- Pos.:** Position of the charging station within the group installation. The eM4 Controller is always assigned to position 1.
- Product:** Product number, revision and serial number of the charging station. The eM4 Controller is marked with ©.

Product Settings

Pos.	Product
1	© 100000151 - Rev. 1 S/N: 

- **Product Properties > Bus-ID:** Identification number of the charging point (outlet) within the group installation
- **Product Properties > Current upper limit of the product (LIM-PL-1):** Upper current limit for the specific charging point. This value can be changed via the **Actions** drop-down menu (see below).
- **Connector Properties:** Number, location, name and phase rotation setting of the charging point (outlet) of the respective charging station

#### Product Properties

Bus-Id/ Current Rating

Bus-Id: Bus-Id: 1

Current upper limit of the product (LIM-PL-1),

#### Connector Properties


Outlet-No./ Location/ Outlet-Name/ PhaseRotation

1 right 123N

### NOTE

#### Changing the current upper limit of a charger

While the current limit for each charger is set during commissioning using the ABL Configuration app, the setting can be adjusted at any later time via the corresponding **Actions** menu. Please note that the **Actions** menu is only displayed when the **INSTALLER** role is active.

- **Actions:** Clicking the  icon opens a field for entering the **Defined Maximum Current**. Confirm the value by clicking ☒ or discard the setting by clicking ☐.

#### Current upper limit of the product (LIM-PL-1)

Defined Maximum Current:  A

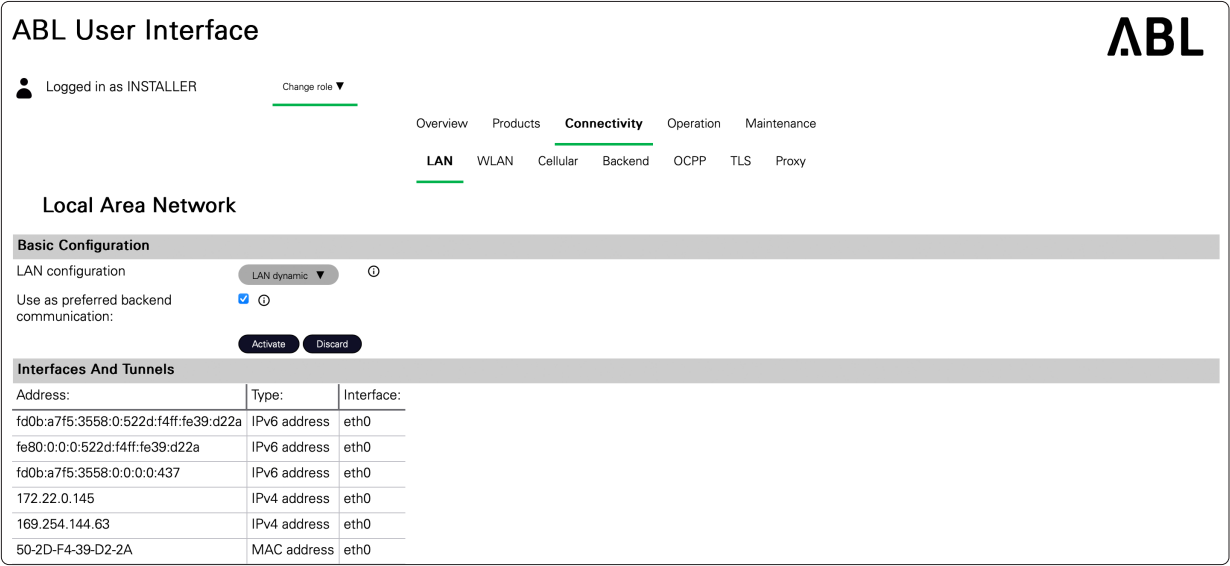
## Product > Diagnostics

### Diagnostic > Diagnostic - Overview of Charging Stations


This tab shows all chargers within the charging group with their position, the specific product information and their current status.

- In case of a hardware error, an error code is shown in the **Status** column. The displayed code correlates to the error codes that are shown in the **Actions in case of internal errors, notes and warnings** section in the **ABL eM4 Installation manual**.

# CONNECTIVITY



The **Connectivity** tab shows details about the various communication interfaces and protocols within your current installation.

 **ATTENTION**

**Selection of the preferred backend communication**

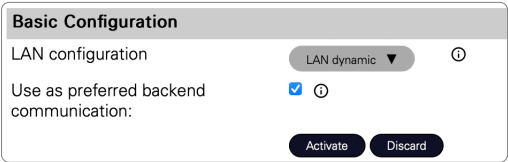
Communication between the eM4 Controller and your preferred backend can be established via the configuration for **LAN**, **WLAN** or **Cellular**. However, only one of these options can be active at a time, so the others are automatically deactivated.

## Connectivity > LAN

### Local Area Network > Basic Configuration

- **LAN configuration:** Drop-down menu for selecting between a LAN connection via a static IP address or a dynamic DHCP lease. For the **LAN static** option, the IP address, subnet mask, gateway and DNS server (optional) must be entered.
- **Use as preferred backend communication:** Check box to connect to the backend/CSMS via LAN only.

Click the **Activate** button to activate the LAN settings or cancel the settings with the **Discard** button.



### Local Area Network > Interfaces and Tunnels

This section is for information only and contains a list of all addresses, types and interfaces used for the wired LAN connection.

- In the event of a communication problem, the technical support team will need this information to help you solve the problem.

Interfaces And Tunnels		
Address:	Type:	Interface:
fd0b:a7f5:3558:0:522d:f4ff:fe39:d22a	IPv6 address	eth0
fe80:0:0:0:522d:f4ff:fe39:d22a	IPv6 address	eth0
fd0b:a7f5:3558:0:0:0:0:437	IPv6 address	eth0
172.22.0.145	IPv4 address	eth0
169.254.144.63	IPv4 address	eth0
50-2D-F4-39-D2-2A	MAC address	eth0



## Connectivity > WLAN

### Wireless Local Area Network > Basic Configuration

- **Service Set Identifier (SSID):** Name of the WLAN network to connect to. The name must be entered manually, as the Web Admin does not currently offer a scan option.
- **Password:** Password for the selected SSID
- **Channel:** Default value of the WLAN channel (usually does not need to be changed)
- **Use as preferred backend communication:** Check box to connect to the backend/CSMS via WLAN only

Click the **Activate** or **Deactivate** button to activate/deactivate the WLAN settings or cancel the settings with the **Discard** button.

Basic Configuration		
Service Set Identifier (SSID):	<input type="text"/>	?
Password:	<input type="password"/>	?
Channel:	<input type="text" value="100"/>	?
Use as preferred backend communication:	<input type="checkbox"/>	?
<div>Activate Deactivate Discard</div>		

### Wireless Local Area Network > Interfaces and Tunnels

This section is for information only and contains a list of all addresses, types and interfaces used for the WLAN connection.

- In the event of a communication problem, the technical support team will need this information to help you solve the problem.

Interfaces And Tunnels		
Address:	Type:	Interface:
fe80:0:0:0:ee5c:84ff:fe1c:af83	IPv6 address	wlan1
10.10.10.200	IPv4 address	wlan1

## Connectivity > Cellular

### Mobile Network (3G/4G) > Access Point Properties

- **Access Point name (APN):** Name of the access point assigned by the SIM provider
- **Username:** Name of the user as assigned by the SIM provider. Depending on the credentials provided by the SIM provider, the **Username** field may sometimes be left blank.
- **Password:** Password of the user assigned by the SIM provider. Depending on the credentials provided by the SIM provider, the **Password** field may sometimes be left blank.
- **GSM force reconnect (24h):** Checkbox enabled by default. When active, a new connection to the backend is established once a day to ensure a stable connection.

Click the **Save** button to activate the mobile network settings or cancel the settings with the **Discard** button.

Access Point Properties	
Access point name (APN):	<input type="text"/>
Username:	<input type="text"/>
Password:	<input type="password"/>
GSM force reconnect (24h):	<input checked="" type="checkbox"/>
<div>Save Discard</div>	

### Mobile Network (3G/4G) > Operation

- **Use as preferred backend communication:** Check box to connect to the backend/CSMS via the mobile network only

Click the **Activate** or **Deactivate** button to activate/deactivate the backend/CSMS communication via the mobile network.

Operation	
Use as preferred backend communication:	<input type="checkbox"/>
<div>Activate Deactivate</div>	

## Mobile Network (3G/4G) > Interfaces and Tunnels

List of address, type and interface used for the mobile network connection.

- If a VPN (tenant) is being used, then the IP address of the SIM card is shown here.

### Interfaces And Tunnels

Address: Type: Interface:

## Connectivity > Backend

### Backend profiles

This list shows various preconfigured backend templates together with the contact information for the associated backend provider.

- If no backend was selected during commissioning with the ABL Configuration app, the backend can be selected here at a later time.

Backend profiles		
This page lists available backend preset. Select one to activate it in the next step. This will overwrite the current settings for the backend.		
24 backends found.		
Tag	Name	Contact
3BPLOT	Charge Pilot (The Mobility House)	The Mobility House GmbH, support@mobilityhouse.com
ChargePoint_LAN	ChargePoint EU (LAN/WLAN)	https://customer.chargepoint.com
ChargePoint_LTE	ChargePoint EU (LTE/Mobile)	https://customer.chargepoint.com
ConnectNed_LAN	ConnectNed LAN/WLAN	https://connectned.nl/
ConnectNed_LTE	ConnectNed Mobile LTE	https://connectned.nl/
eround1	eRound public internet	www.eround.de
eround2	eRound mobile network	www.eround.de

## Connectivity > OCPP

### Open Charge Point Protocol > OCPP Settings

- **OCPP version:** Drop-down menu for selecting the protocol version to which the charging station is connected. Currently, versions 1.5 and 1.6 are supported.
- **Central system address (URL):** URL address to connect with the backend/CSMS
- **Chargebox ID:** ID used to identify the charging station from the CSMS/backend. The default ID is: *ABL\_[serialnumber]*
- **Local port:** Port information when **Central system address (URL)** starts with **https://**
- **Local path:** Path information when **Central system address (URL)** starts with **https://** and the connection is established via SOAP (Simple Object Access Protocol)
- **Basic authentication password:** Credentials provided by the OCPP provider. By default, this field is already filled, even if the password has not been set.

**OCPP Settings**

OCPP version: 1.6 ⓘ

Central system address (URL): ws://172.22.0.1:9000  
Transport ws:// indicates unencrypted JSONWeb-Socket.

Chargebox ID: ABL\_10367680

Local port: 7890 ⓘ

Local path: /ChargePoint ⓘ

Basic authentication password: ..... ⓘ

Save Discard

Click the **Save** button to activate the OCPP settings or cancel the settings with the **Discard** button.



### ATTENTION

#### Connection via WebSocket or WebSocketSecure

- When the connection is established via WebSocket (ws://), no certification is required.
- When the connection is established via WebSocketSecure (wss://), you must check that the TLS certificates are correct and upload the server certificate if necessary (see next section).

## Connectivity > TLS

### Transport Layer Security Overview > Parameters

- **Handshake with debugging information:** If problems occur with an encrypted connection via TLS, additional information for debugging can be transmitted. In this case, technical support may recommend enabling this option to view the logs.
- **Supported TLS versions:** Drop-down menu for selecting the TLS version. TLS 1.3 is the preferred version.

Click the **Save** button to activate the selected TLS version or cancel the setting with the **Discard** button.

**Parameters**

Handshake with debugging information: ☐

Supported TLS versions: 

TLSv1.3  
TLSv1.2  
TLSv1.1  
TLSv1

 ⓘ

**Save** **Discard**

\*TLS 1.3 is preferred, TLS 1.1 is legacy

### Transport Layer Security Overview > Certificate Signing Requests, Charge-Point/Box: Stored Client Certificates & Central System: Trusted Server Certificates

These sections list all internal and client certificates used for TLS communication. Although the Web Admin allows downloading, deleting and uploading certificates, this is not recommended or only after consulting customer service.

Certificate Signing Requests	
Id	Subject
cb-csr	DE / ABL / Chargebox PT0243-H00005647
cp-csr	DE / ABL / Chargepoint 10367680

Charge-Point/Box: Stored Client Certificates		
Id	Subject	Issuer
cb-self-crt	DE / ABL / Chargebox PT0243-H00005647	DE / ABL / Chargebox PT0243-H00005647
cb-abl-crt	DE / ABL / Chargebox PT0243-H00005647	DE / ABL / Chargebox PT0243-H00005647

Central-System: Trusted Server Certificates	
Id	Subject
ca.ocpp.chargepoint.net	US / "ChargePoint / Inc."
cc-root	GB / Comodo CA Limited / A
connect-longship-io	connect.longship.io
digicertglobalrootg2.crt	US / DigiCert Inc / DigiCert G

## Connectivity > Proxy

### Proxy > Proxy Settings

These settings need to be customised when moving the charge points from one network to another. Please contact customer service before making any changes to this section.

**Proxy**

**Proxy settings**

HTTP proxy:  Port:

If one of the values is undefined, the system does not use a proxy connection.

**Access data for proxy (Basic Authentication)**

Username:

Password:

**Save** **Discard**

# OPERATION

ABL User Interface

ABL

Logged in as OWNER

Change role ▼

Overview

Products

Connectivity

Operation

Maintenance

General

OCPP Configuration

OCPP Settings

Eichrecht

Load Management

Local RFID Mode

General Settings

Operation mode

Operation mode: 

Online - Backend Mode ▼

 ⓘ

Save

Discard

Blackout Handling

Downtime limit: 

0

 seconds

Present after blackout: 

Stop charging ▼

 ⓘ

Present before blackout: 

Stop charging ▼

 ⓘ

Present before downtime limit: 

Stop charging ▼

 ⓘ

Save

Discard

Additional Properties

Logging level: 

Trace ▼

Station comments:

Save

Discard

AR4100 Device

Operation AR4100 Meter: no ⓘ

Mode: VDE AR-N 4100 ⓘ

Polling Interval: 60 ⓘ

Enabling password request

Enter a valid username and password and select the button below to activate the request of passwords for accessing the web administration.

The **Operation** tab shows details about the various communication interfaces and protocols within your current installation.

## Operation > General

### General Settings > Operation mode

**Operation mode:** Drop-down menu for selecting the mode of authenticating the charging process:

- Backend Mode (Online)
- RFID mode (Local)
- Free charging (Local)

Click the **Save** button to activate the operation mode or cancel the setting with the **Discard** button.

Operation mode

Operation mode: 

Online - Backend Mode ▼

 ⓘ

Save

Discard

## General Settings > Blackout Handling

- **Downtime limit:** Duration of the blackout in seconds, until the behaviour of the charging points is managed via the following parameters
- **Present after blackout:** Drop-down menu for selecting the behaviour when charging starts after the blackout: charging can either be stopped or set to free charging with user identification.
- **Present before blackout:** Drop-down menu for selecting the behaviour if charging has started before the blackout: charging can either be stopped, reactivated for the previously used ID or set to free charging with user identification.
- **Present before downtime limit:** Drop-down menu for selecting the behaviour before reaching the downtime limit when charging has started before the blackout: charging can either be stopped, reactivated for the previously used ID or set to free charging with user identification.

**Blackout Handling**

Downtime limit:  seconds

Present after blackout: Stop charging ⓘ

Present before blackout: Stop charging ⓘ

Present before downtime limit: Stop charging ⓘ

Save Discard

Click the **Save** button to activate the settings or cancel the settings with the **Discard** button.

### ! NOTE

#### Behaviour in case of a blackout

It is generally recommended to stop charging when there is a blackout. Otherwise, another user may use the remaining energy of a charging session for free after the power is restored.

## General Settings > Additional Properties

- **Logging level:** Drop-down menu for selecting the type of failure that will be logged in the diagnostic files (Fatal, Error, Warn, Debug, Info, Trace).
- **Station comments:** Field for entering a personal comment to be added to the log files

**Additional Properties**

Logging level: Trace ▾

Station comments:

Save Discard

## General Settings > AR4100 Device

This section displays the status of the potential-free contact for external load shedding in accordance with VDE AR-N 4100 or §14a EnWg, which allows the local energy supplier to reduce the charging power. While this section is only for information in the **Owner** role, the parameters can be customised in the **Installer** role.

- **Operation AR4100 Meter:** Checkbox to activate the external load shedding circuit (see **Attention** below)
- **Mode:** Can be set to **VDE AR-N 4100** (4-stage reduction of the charging current from 100 to 0%) or to **BK6-2-300 (§14a)** for a fixed reduction to a minimum of 4.2 kW (see <https://www.bundesnetzagentur.de>).
- **Polling Interval:** Field for entering a value in seconds for polling the activated load shedding circuit.

**AR4100 Device**

Operation AR4100 Meter: ☐ ⓘ

Mode: VDE AR-N 4100 ⓘ

Polling Interval:  ⓘ

## NOTE

### Notes about load shedding

The VDE AR-N 4100 (see §14a EnWG 6A, BK6-22-300, grid connection of more than 4.2 kW) is only relevant for the German market. According to this regulation, the charger must offer an option for control by the local energy supplier.

## ATTENTION

### Behaviour when no control signal is present

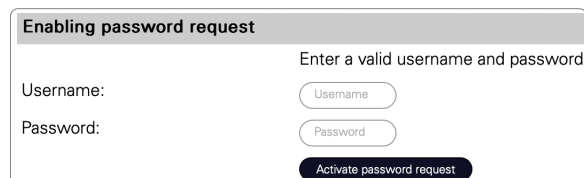
Please note that charging is not possible if the external load shedding circuit is active but no control signal is present (cable not connected or damaged).

## General Settings > Password request

If necessary, access to the Web Admin can be protected by a predefined username and password, which is provided specifically for the main unit of the Controller wallbox. To obtain the password, please contact ABL Customer Service, who will then send you the password based on the serial number of the main unit of the Controller (see “**Serial number SBC**” in section “Info > Charging Station” on page 11).

- **Username:** Field for entering the predefined user name “installer” (lowercase letters only).
- **Password:** Field for entering the password provided by ABL Customer Service.

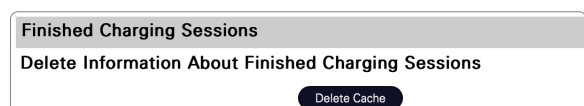
When you click the **Activate password request** button, the Web Admin will restart and from this point on, login will be protected by entering the user name and password.



The following options are only displayed when the **INSTALLER** role is selected.

## General Settings > Finished Charging Sessions

Click the **Delete Cache** button to delete all information about finished charging sessions from the charger's cache. Otherwise, this information can be used to track completed charging sessions if the charger has been offline in the meantime.



## General Settings > Modbus TCP properties

- **Start Modbus TCP Server:** Checkbox to enable if the charger responds to any **ABL** (default) or **Modbus API**

Click the **Save** button to activate the setting or cancel the setting with the **Discard** button.

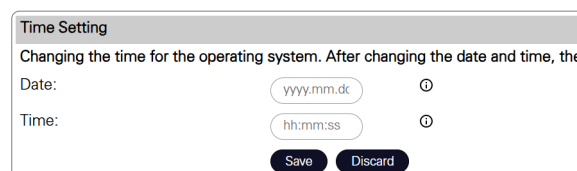


## General Settings > Time setting

In general, the charger is synchronised with the backend. If necessary, the time setting can be changed to the actual/local time.

- **Date:** Field for entering the desired date
- **Time:** Field for entering the desired time

Click the **Save** button to activate the time setting or cancel the setting with the **Discard** button.



**Time Setting**

Changing the time for the operating system. After changing the date and time, the

Date:  ⓘ

Time:  ⓘ

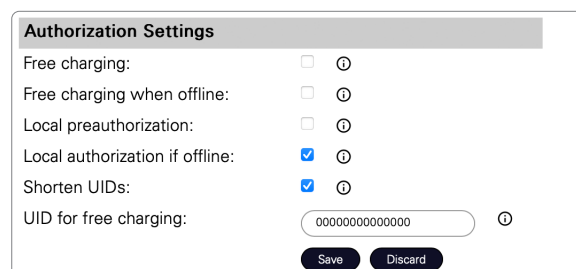
**Save** **Discard**

## Operation > OCPP Configuration

If necessary, the **Authorization Settings** for the OCPP Configuration can be adapted.

- **Free charging:** When the checkbox is activated, the charging is accessible without an RFID card.
- **Free charging when offline:** When the checkbox is activated, a free charging session can be started when the connection to the backend is offline. This does not affect the online behavior
- **Local preauthorization:** When the checkbox is activated, the charging process can be authorised with an RFID card that is already listed in the internal cache without having to first release the card through the backend.
- **Local preauthorization if offline:** When the checkbox is activated, the charging process can be authorised with an RFID card that is already listed in the internal cache even when the backend is temporarily not available.
- **Shorten UUIDs:** When the checkbox is activated, the UUIDs are shortened to save memory.
- **UID for free charging:** This UID will be sent to the backend to identify free charging sessions.

Click the **Save** button to activate the setting or cancel the setting with the **Discard** button.



**Authorization Settings**

Free charging: ☐ ⓘ

Free charging when offline: ☐ ⓘ

Local preauthorization: ☐ ⓘ

Local authorization if offline: ☒ ⓘ

Shorten UUIDs: ☒ ⓘ

UID for free charging:  ⓘ

**Save** **Discard**

### ! NOTE

#### Note about changing the authorisation settings

All authorisation settings can be configured either in the Web Admin or in the backend. The last action always overwrites the previous setting in the other environment.

## Operation > OCPP Settings

### OCPP Settings from Backend > Setup for MeterValues

This section is for information only and shows all the settings that can be retrieved via the backend connection.

Setup for MeterValues	
MeterValuesSampledData:	Power.Active.Import,Energy.Active.Import,Measurand(s) sampled every MeterValue,Energy.Active.Import.Register
MeterValuesAlignedData:	not set
StopTxnSampledData:	Clock aligned measurand(s) sampled every MeterValue,Energy.Active.Import.Register

Operations > Eichrecht

This page provides access to all settings related to German “Eichrecht” (calibration law). This page is only relevant for the German market.

Settings for German Law on Units and Measurements (Eichrecht)

Basic Settings

Generate signatures:

no

Enables cryptographic signatures on the meter values. For more informations about this, please visit [SAFE](#).

Eichrecht compliant:

no

Signature type:

Charge Data Record (CDR)

General

Push meters configuration:

☐

Save

Discard

Software packages

Current version:

-

The available versions:

The list is empty.

Interfaces And Tunnels

Address: Type: Interface:

No network interfaces available

Public Keys

There are no public keys

Settings for German Law on Units and Measurements (Eichrecht) > Basic settings

This section displays the basic settings for calibration law compliant communication. These entries are for information only and cannot be edited.

Basic Settings

Generate signatures:

no

Enables cryptographic signatures on the meter values. For more informations about this, please visit [SAFE](#).

Eichrecht compliant:

no

Signature type:

Charge Data Record (CDR)

Settings for German Law on Units and Measurements (Eichrecht) > General

- Push Meters configuration:** When the checkbox is activated, the Public Keys of the charging points are transferred to the backend.

Click the **Save** button to activate the setting or cancel the setting with the **Discard** button.

General

Push meters configuration:

☐

Save

Discard

Settings for German Law on Units and Measurements (Eichrecht) > Software packages

- Current version:** This shows the current version of the Eichrecht software running on the charging station.
- The available versions:** This drop-down menu shows the supported Eichrecht versions. However, the Eichrecht version may only be changed with the approval of the local metrology authority.

Software packages

Current version:

-

The available versions:

The list is empty.

Settings for German Law on Units and Measurements (Eichrecht) > Interfaces and tunnels

List of addresses, type and interface used for the Eichrecht communication.

Interfaces And Tunnels

Address: Type: Interface:

No network interfaces available

Settings for German Law on Units and Measurements (Eichrecht) > Public Keys

List of the outlet, meter and public key for the charging point.

Public Keys

There are no public keys

Page loaded at:



### ATTENTION

#### Restrictions on editing

When the **Owner** role is selected, the content on the **Load Management** page is read only. The parameters may only be adjusted by an **Installer** (electrically qualified person).

The disclaimer on the right will be displayed.



The settings on this page must only be adjusted by an electrically qualified person.

## Load Management > Group Settings

This section allows to set up the parameters for the load management in a group installation. The displayed content depends on the type of installation.

### Load Management Mode: Static

If no external energy meter is installed, the charging group uses the static upper current limit set in the **Product > Installation > Group settings** section (see “Installation > Group Settings” on page 14 ). This maximum current is then distributed among the chargers in the charging group according to individual requirements.

Group Settings	
Load management Mode	Static ⓘ

### Load Management Mode: Dynamic

This section allows to set up the parameters for the dynamic load management in combination with an external energy meter.

- **Load management Mode:** Drop-down menu for selecting between the **Static** (see above) and **Dynamic (ext. meter)** load management modes
- **Main terminal current limit:** Field for entering the current limit value per phase, reserved for charging
- **Metering Type:** Drop-down menu for selecting between **sectional** (load of the charging infrastructure only) or **total** measurement (load of the building and the charging infrastructure)
- **The list of ext. meters:** Drop-down menu for selecting the external energy meter via its serial number
- **Additional settings:** Click the **Show/Hide** button to show or hide additional settings for load management. These parameters determine what happens in the event of a communication error with the energy meter and should not normally be changed.

Group Settings	
Load management Mode	Dynamic (ext. Meter) ⓘ
Main terminal current limit:	32 A
Metering Type:	total current ▾
The list of ext.meters:	76042752 ▾
Additional settings:	<div>Show</div> <div>Save Discard</div>

Click the **Save** button to activate the settings or cancel the settings with the **Discard** button.

## Operations > Local RFID Mode

### Local RFID Mode. Management of User List

This section is used to manage the list of users/RFID cards for charging authentication.

- The RFID - UID, Username, Outlets and Action columns show all currently registered users/RFID cards.

To add a user/RFID card, proceed as follows:

- 1 Click the Add RFID Card button and present the RFID card in front of the RFID card reader of the eM4
  - The UID of the RFID card is read and displayed in the **RFID-UID** field.
- 2 Enter the name for the RFID card in the **Username** field.
- 3 Enter the number of charging points for which the RFID card should be valid in the **Outlets** field (e. g. enter **1** for charging point 1, **1,2** for charging points 1 and 2 etc. or press the spacebar for all charging points).
  - It is possible to register each RFID card for selected or all charging points.
- 4 Click ✓ to add the user/RFID card or ✕ to discard the information.
- 5 Repeat the process until all required cards have been registered.

Charging sessions can now be displayed with the corresponding RFID cards.

- **Export User List:** Click the **Export** button to export a file with all currently registered users/RFID cards. This file can be saved and imported into any other Controller Wallbox if required.
- **Import User List:** To import a previously saved file or one exported from another eM4 Controller, select the file directory and click the **Import** button.

RFID - UID	Username	Outlets	Action
No entries found.			

Add RFID-Card Delete all

RFID - UID	Username	Outlets	Action
0411943A706800	John Miller	1	✓ ✕

1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100

Export User List: Export

Import User List: Durchsuchen... Keine Datei ausgewählt. Import

# MAINTENANCE

ABL User Interface

ABL

Logged in as OWNER

Change role ▼

OverviewProductsConnectivityOperationMaintenance

SystemDiagnosisLogs ▼

Maintenance Functions

System Restart

Soft reset:

Restart the application and drivers. The operating system will continue working. It will take up to 100 seconds until the application is accessible again.

Soft reset

Hard reset:

Restart the complete system including operating system. It will take up to 150 seconds until the application is accessible again.

Hard reset

Software Update

Depending on mobile network speed, file upload can take several minutes. After successful upload, but before the update-process itself starts, a new page will be displayed.

Please choose the update file from your disk and click the Upload button.

Datei auswählenKeine Datei ausgewähltUpload

System Diagnosis

Set a start and end date for filtering the log files. If no dates are supplied, all available log files are collected.

Start date (yyyy-mm-dd):

End date (yyyy-mm-dd):

Generate diagnostics

The Maintenance tab offers tools to reset the charging station(s) in the event of malfunctions and to carry out diagnostic measures.

## Maintenance > System

### Maintenance Functions > System Restart

- **Soft reset:** Clicking this button restarts the charger software without restarting the hardware. After the restart, all previously configured parameters remain active.
- **Hard reset:** Clicking this button restarts the charger software and hardware. After the restart, all previously configured parameters remain active.

System Restart

Soft reset:

Restart the application and drivers. The operating s again.

Soft reset

Hard reset:

Restart the complete system including operating s

Hard reset

### Maintenance Functions > Software Update

- If the software is out of date, you can update it by selecting the file directory and clicking the **Update** button. The charger performs a hard and soft reset and updates its internal software: the progress is shown on the **Overview > General** page. When the process is complete, the new software is active.

Software Update

Depending on mobile network speed, file upload d new page will be displayed.

Please choose the update file from your disk and d

Datei auswählenKeine Datei ausgewähltUpload

## Maintenance Functions > System Diagnosis

If an error occurs, you can create a diagnosis for a specific time interval.

- **Start date:** Field for entering the start time for the diagnosis
- **End date:** Field for entering the end time for the diagnosis
- Clicking the **Generate diagnostics** button exports the logs for the selected interval. If no start/end time is entered, all available log files are collected.

**System Diagnosis**

Set a start and end date for filtering the log files. If

Start date (yyyy-mm-dd):

End date (yyyy-mm-dd):

Generate diagnostics

## Maintenance > Diagnosis

### List of Devices

This page displays the hardware and software status of all components in the charger, as well as RFID detection information.

**List of Devices**

▼ 100000151 - Rev. 1

▼ Unrelated Devices

✓ Limit

Logical ID: SupplyLimit, Physical ID: LIM-SL-1

• Maximum current per phase: 160.0 A, (static). From: InstallerDefinedMaxCurrent.

✓ Host ABL, SBC4 (S/N **PTB243-H00005647**)

Logical ID: 1/Host, Physical ID: 0\_0\_0\_0

HW: 3.A, SW: 2.2, OS: 2.2

▼ Single outlet

✓ Phase Rotation

Logical ID: 1/A/InternalRotation/1, Physical ID: PHR-1-1

Phases will be mapped from 123N -> 123N (grid side)

✓ Phase Rotation

Logical ID: 1/ProductRotation, Physical ID: PHR-0-1

## Maintenance > Logs

Clicking on this entry opens a drop-down menu with various options for exporting the charger's internal log data. This information is only relevant for ABL customer service and can be requested from them by arrangement.

System **Diagnosis** Logs ▼

**List of Devices**

▼ 100000151 - Rev. 1

▼ Unrelated Devices

✓ Limit

Logical ID: SupplyLimit, Physical ID: LIM-SL-1

• Maximum current per phase: 160.0 A, (static). From: InstallerDefinedMaxCurrent.

✓ Host ABL, SBC4 (S/N **PTB243-H00005647**)

Logical ID: 1/Host, Physical ID: 0\_0\_0\_0

HW: 3.A, SW: 2.2, OS: 2.2

▼ Single outlet

✓ Phase Rotation

Logical ID: 1/A/InternalRotation/1, Physical ID: PHR-1-1

Phases will be mapped from 123N -> 123N (grid side)

User

ChargePoint

OCPP

Bus Manager

BusManagerLongTerm

Connectivity Manager

Load Management System

messages

Eichrecht

dmesg





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