



 **TELTONIKA** | Energy

EVC2

Quick user guide

Agenda:

- Charging station
- First installation
 - Pairing and installers menu
 - Load balancing
 - Phase balancing
 - Modbus RTU meter
 - Network meter
 - CT clamps
 - Solar integration
 - Dynamic load management (Modbus RTU)
 - Dynamic load management (Modbus TCP/IP)
- App and additional features
 - Connectivity & OCPP
 - Authorization via NFC
 - Updating
 - Charging sessions
 - Schedule
 - Diagnostics
 - Troubleshooting
 - Potential free contact
 - Power selector switch
- Accessories
 - Mounting poles
 - Smart meters / CT clamps

EVC2

Box contents:



NFC card + tag
x 1



Mounting
bracket
x 1



NFC mark
sticker
x 1



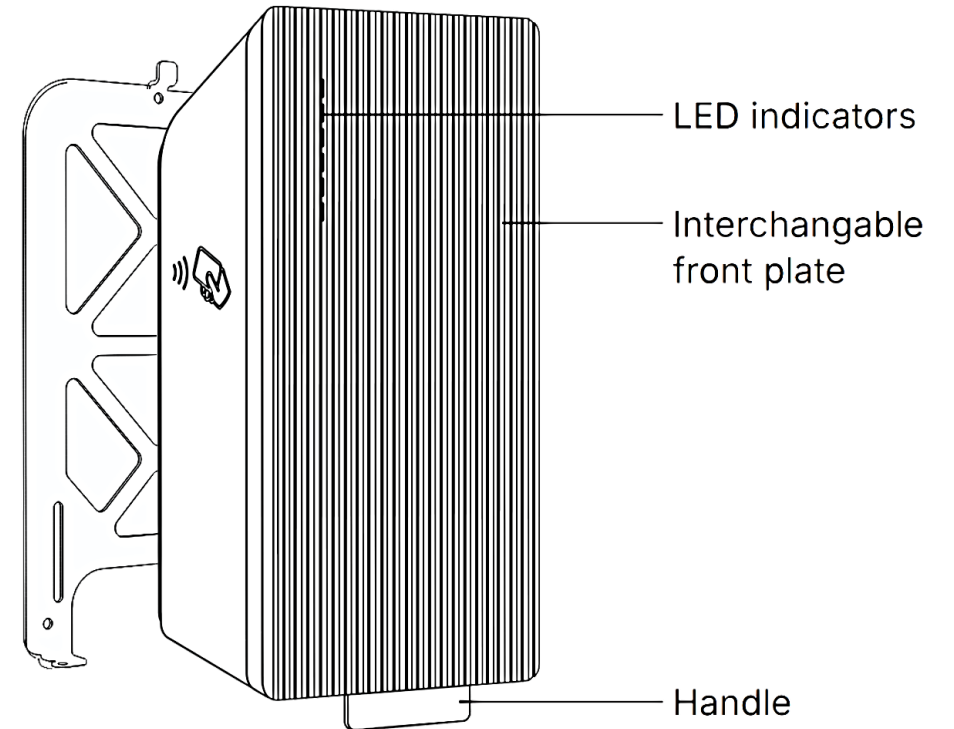
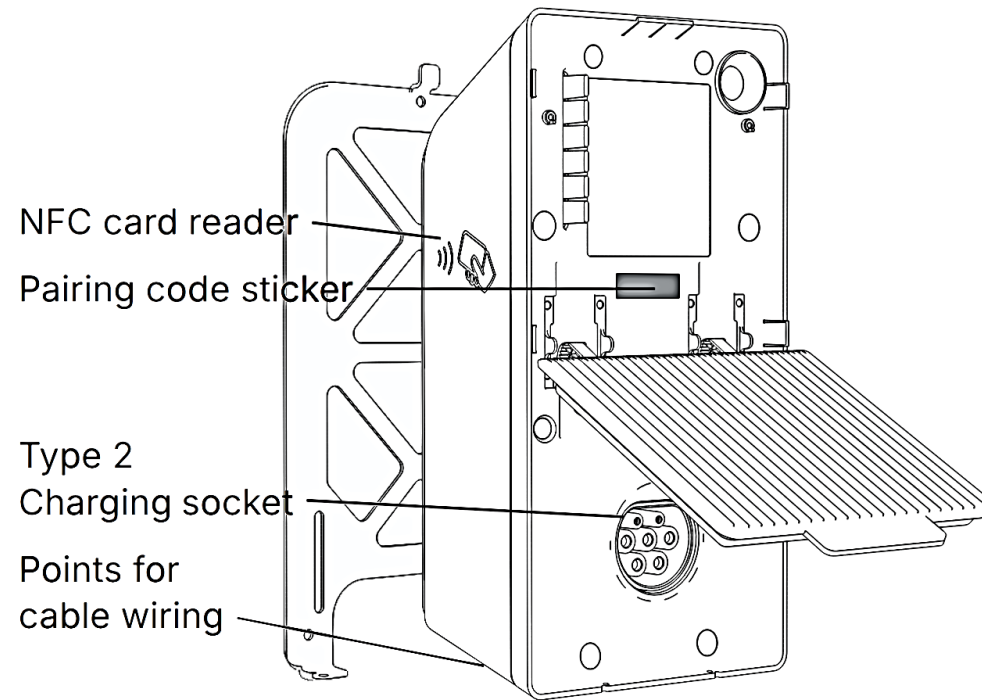
Installation
manual
x 1



Box with parts
x 1
Box contains wall
plugs, screws and
cable glands

EVC2

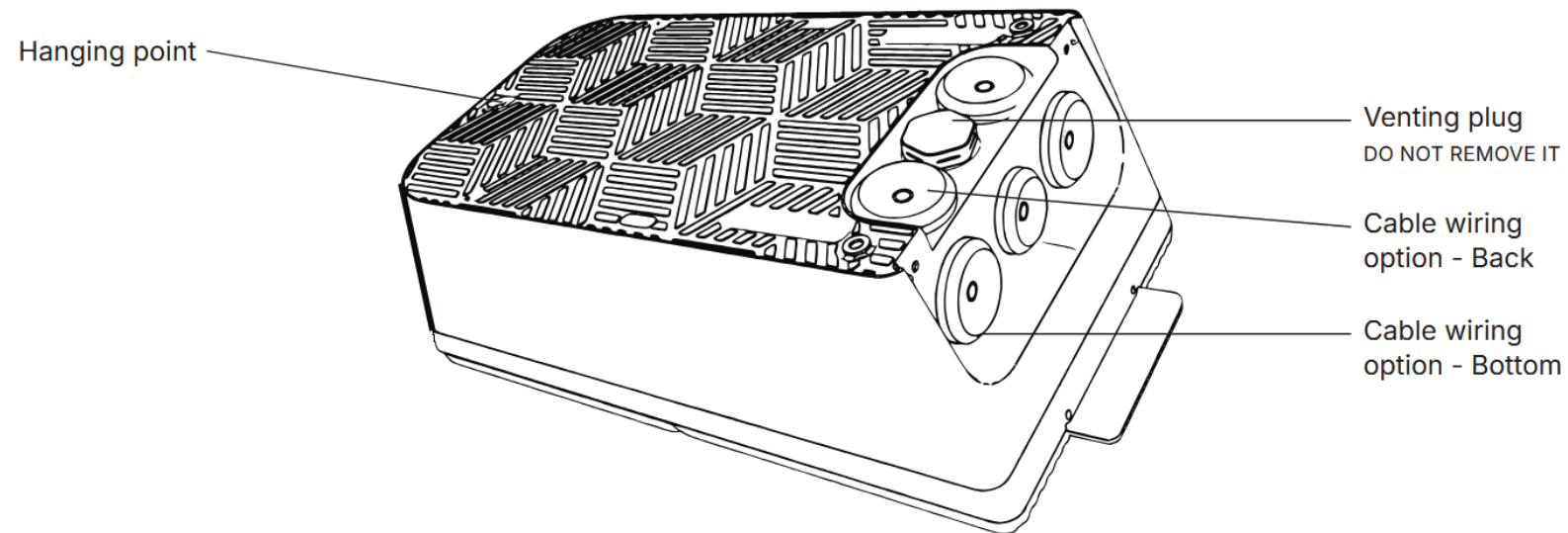
Basic installation:



EVC2

Basic installation:

Back view

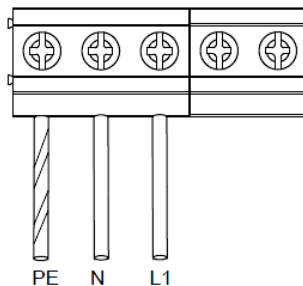


EVC2

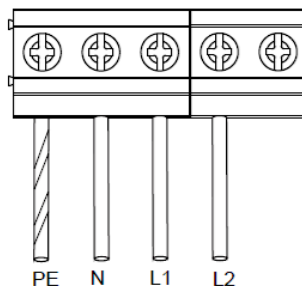
Wiring:

Standard grid

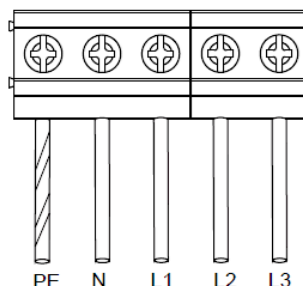
Single phase 1L+N+PE
L-N 230V ± 10%



Bi phase 2L+N+PE
L-N 230V ± 10%
L-L 400V ± 10%

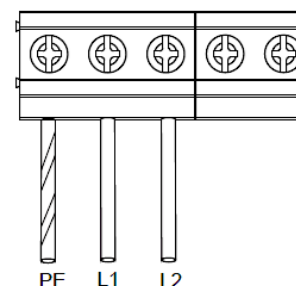


3 phase 3L+N+PE
L-N 230V ± 10%
L-L 400V ± 10%

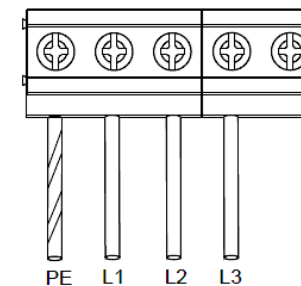


Delta grid

Bi phase L2+L1+PE
L-L 230V ± 10%



3 phase 3L+PE
L-L 230V ± 10%



Maximum wire cross section 10 mm²

“EV charging” mobile application

Android application

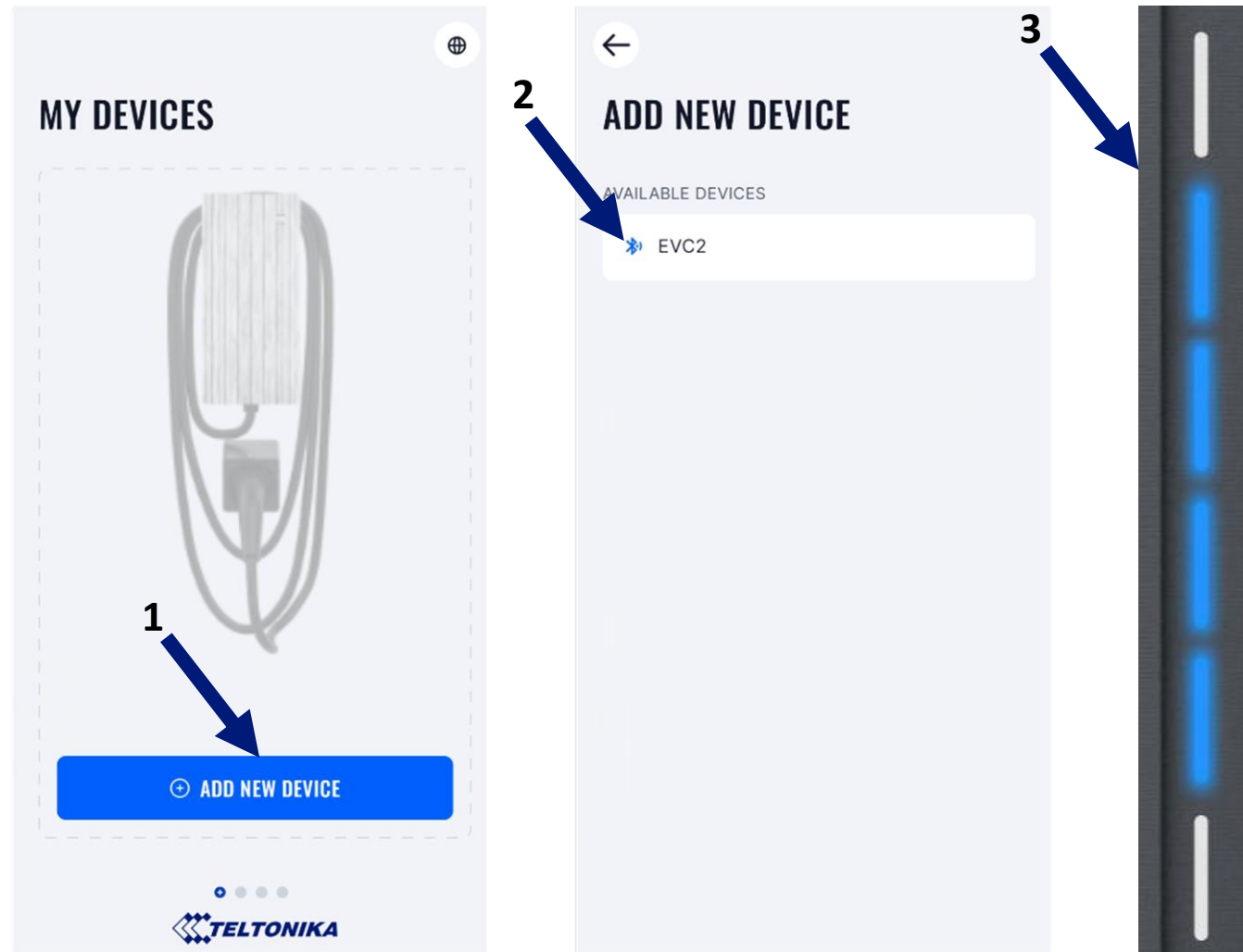


iPhone application



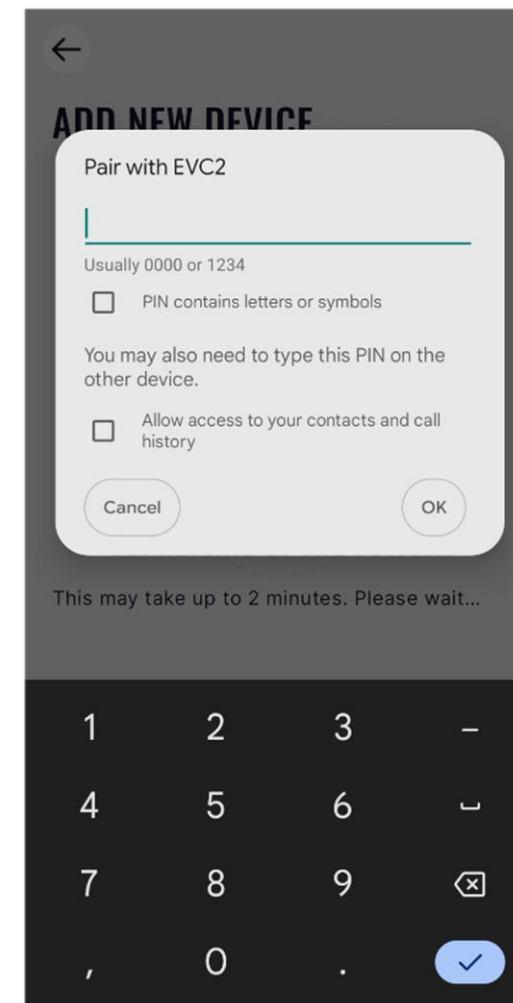
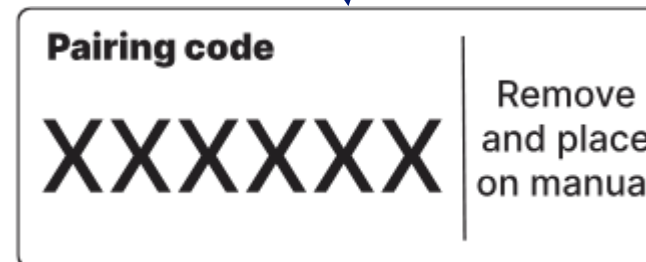
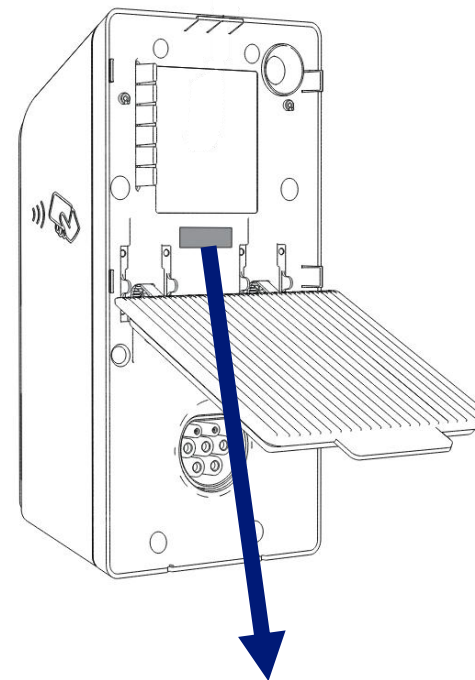
Pairing with the station

- Press **Add new device**
- Select the device from the list
- EVC2 will lit up with **BLUE** leds



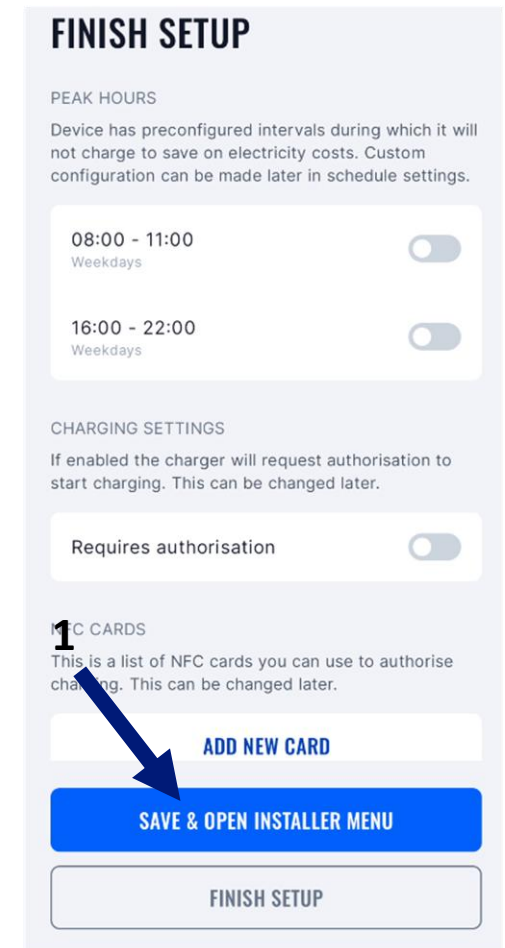
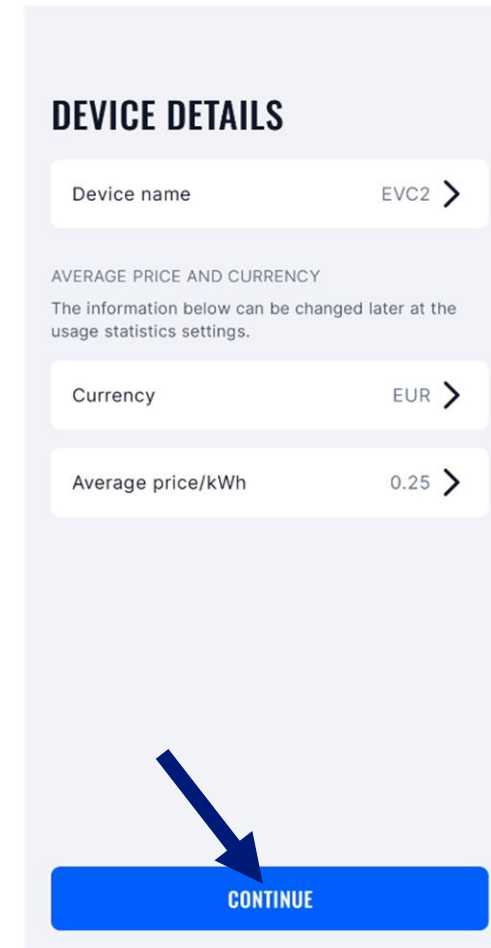
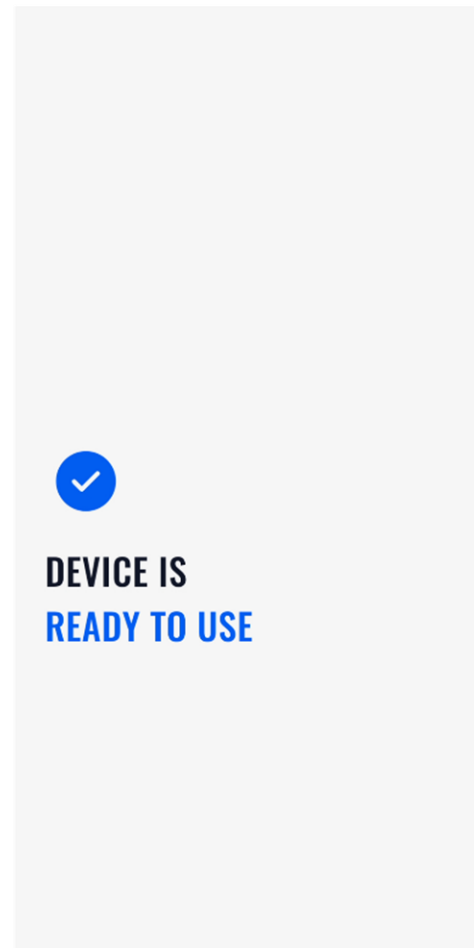
User code and where to find it

- After a few seconds pairing table pops up. It requires code to complete pairing process.
- Insert the given pairing code from the label.



Initial device settings

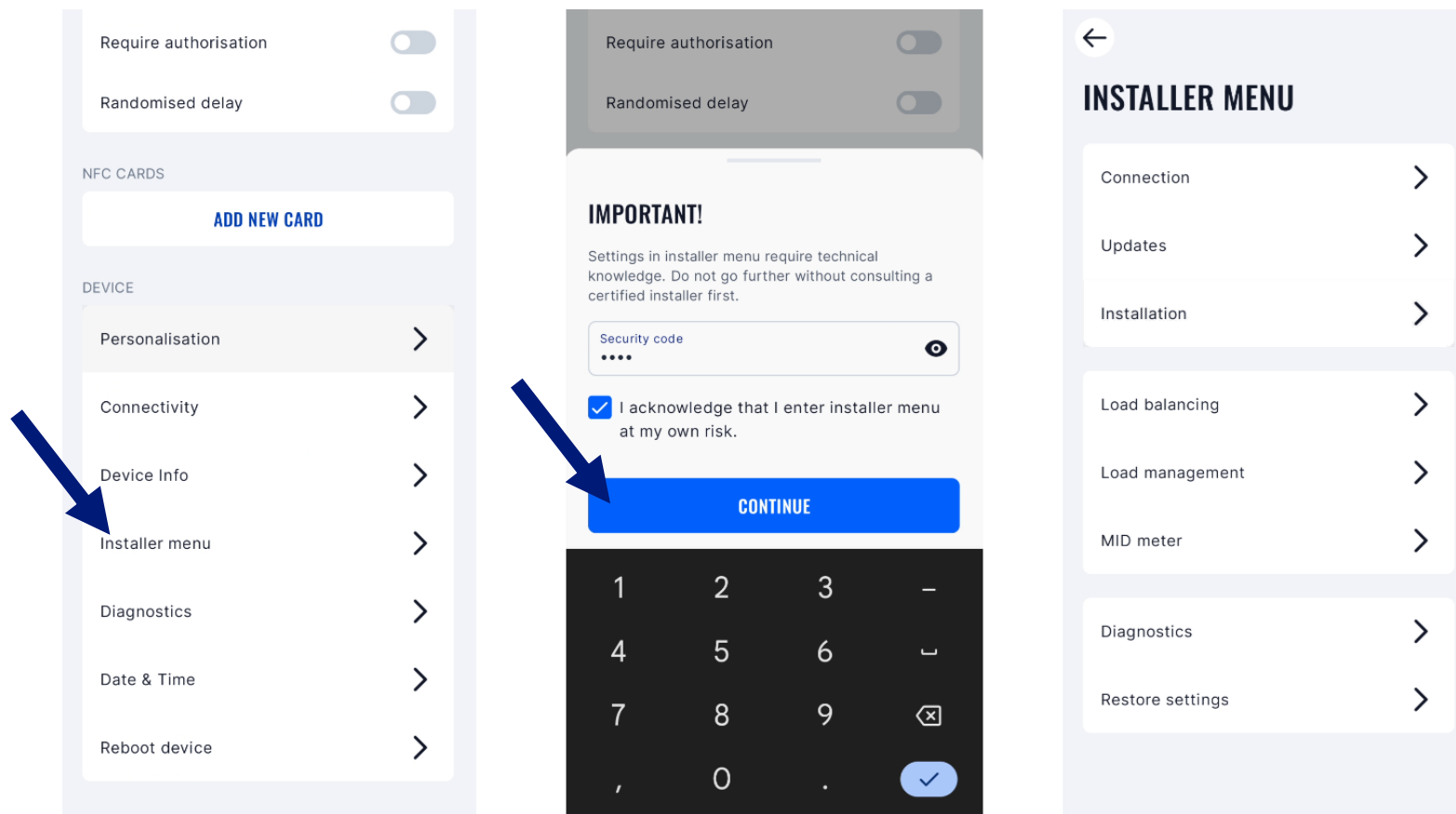
- After pairing with the device, we can set initial settings like currency, electricity price, default schedules or NFC authorization
- User can set these settings later if he wants to, we can continue going to the installer menu



Installer menu

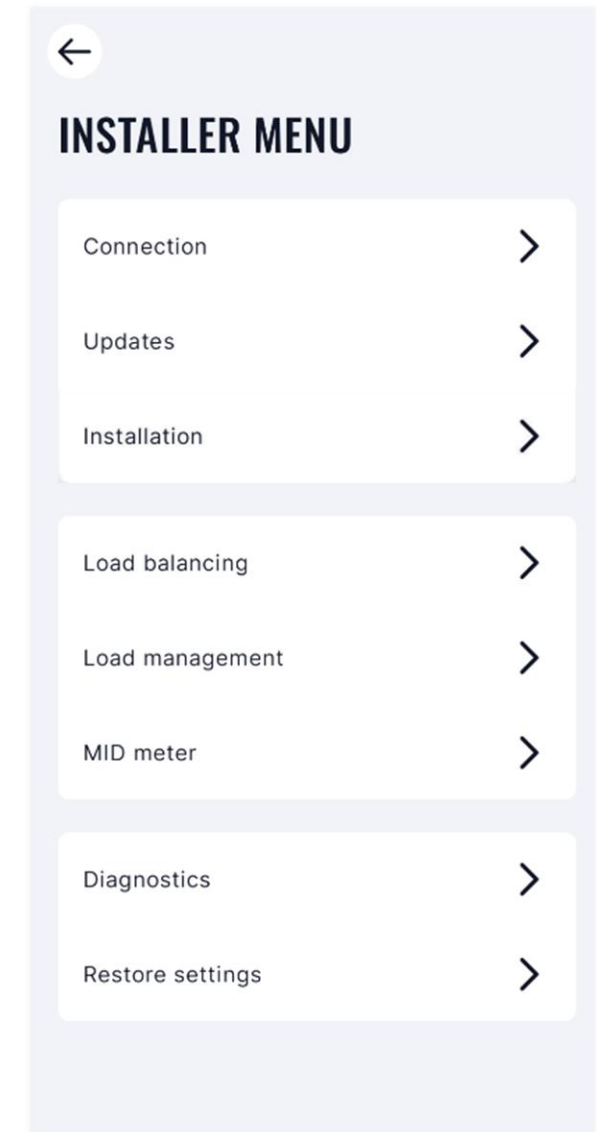
- Access installers menu by entering the installers password

1998 is the default code for every EVC2



Installer menu

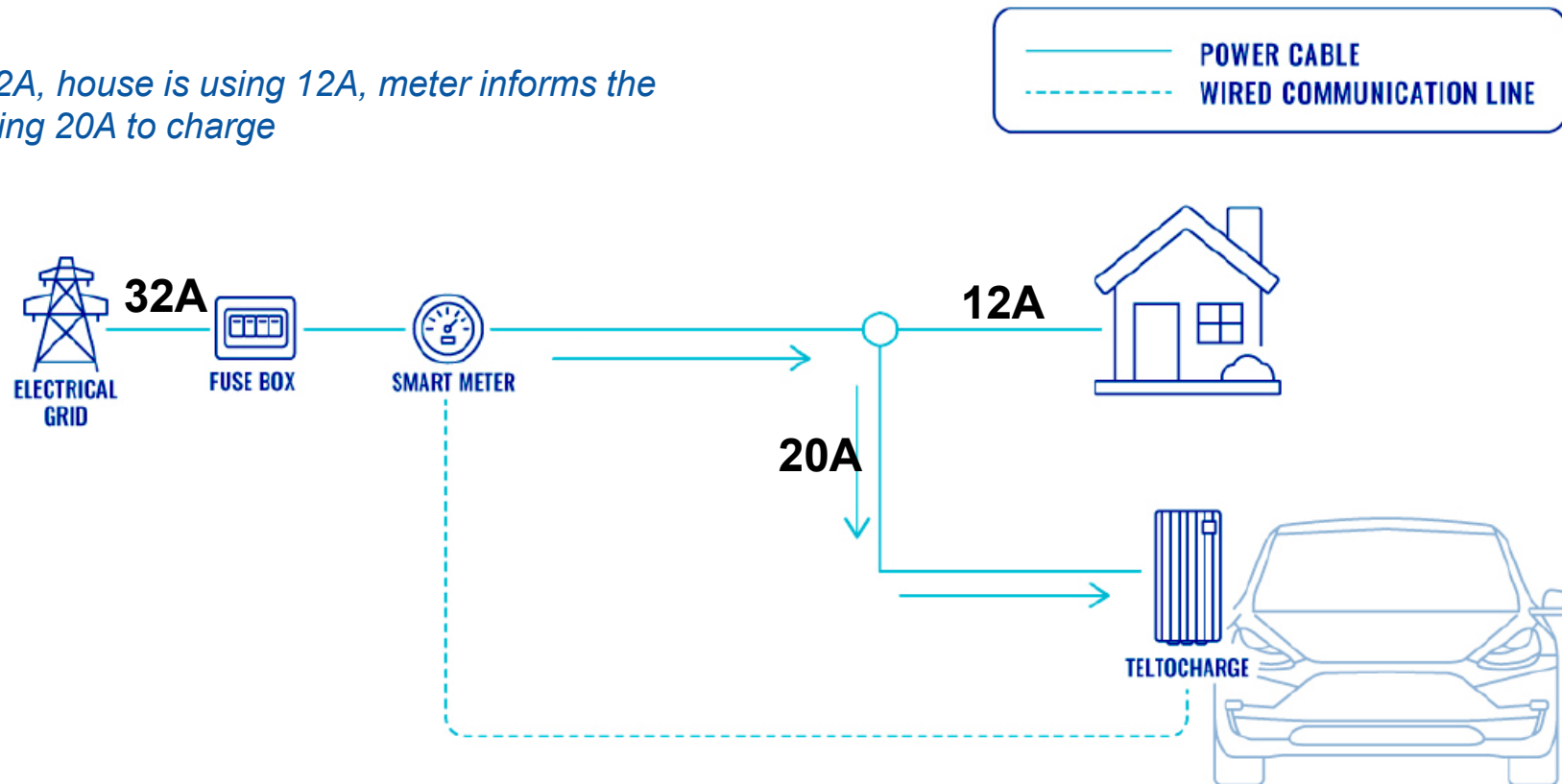
- [Connection](#) – menu to configure internet connection
- [Updates](#) - menu to check available updates
- [Installation](#) – menu for main limitation settings
- [Load balancing](#) – menu to enable dynamic load balancing and solar functionality
- [Load management](#) – menu to enable current distribution for a group of chargers
- [MID meter](#) – menu to enable separate smart meter for MID calculations
- [Diagnostics](#) – status of EV charging station
- [Restore settings](#) – restoration to default values



Dynamic Load Balancing

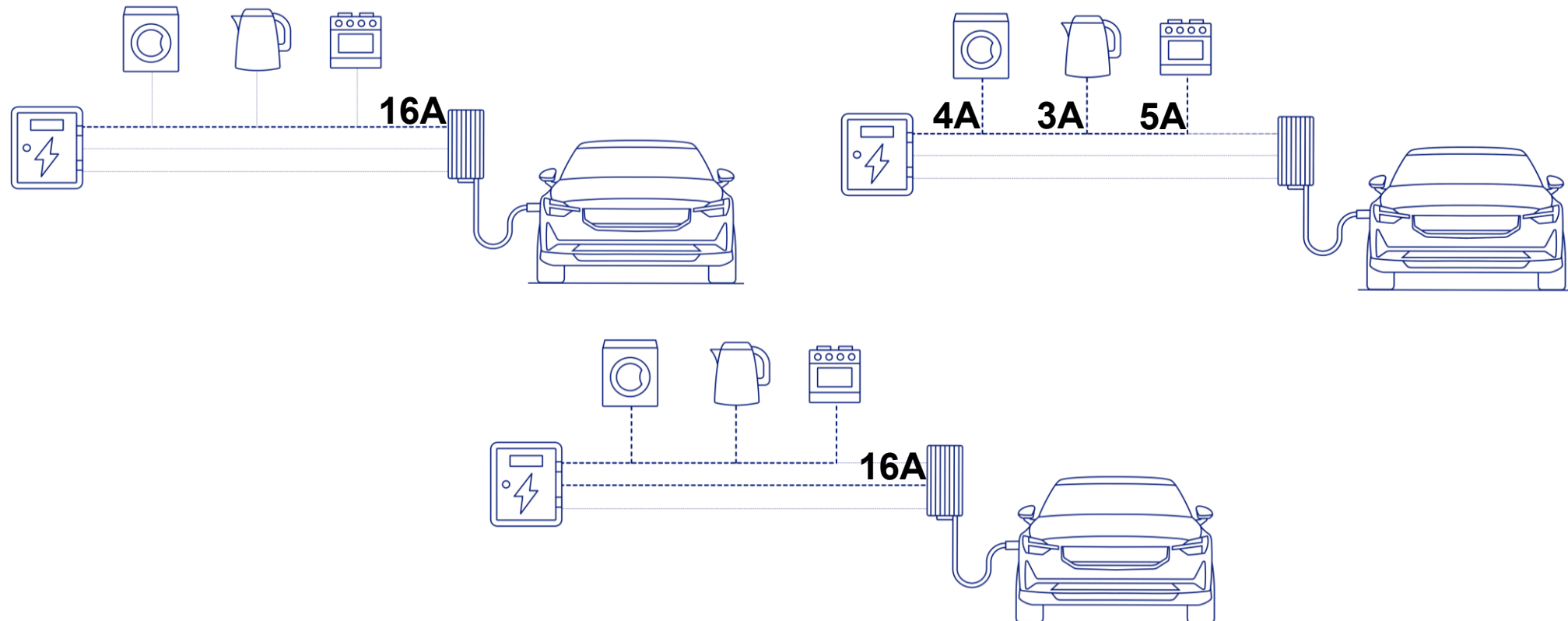
Load balancing enables communication with a dedicated smart energy meter and adjusts charging power according to grid measurements

In the picture – grid has 32A, house is using 12A, meter informs the charger to use the remaining 20A to charge



Phase balancing

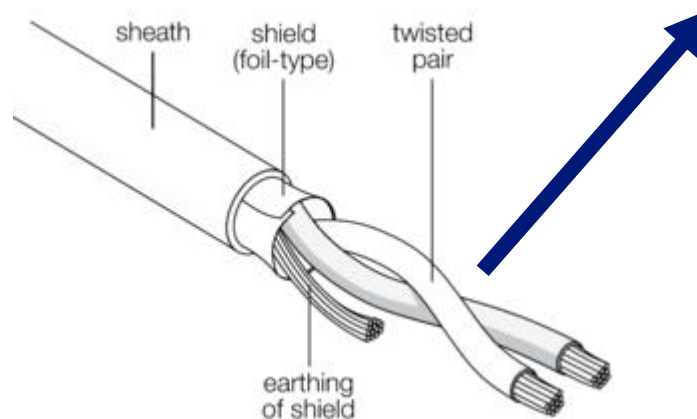
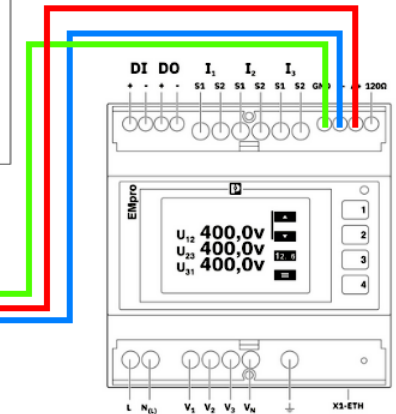
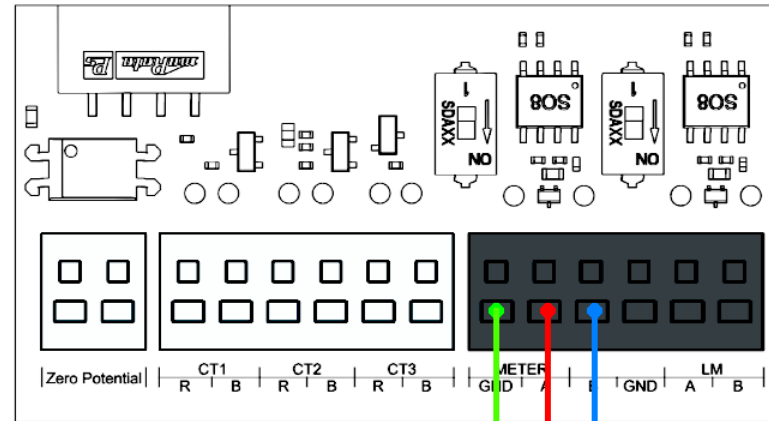
Using a three-phase station while charging on one phase allows us to take advantage of the least used phase. In this example we see that charger automatically chooses 2nd phase when it detects load on 1st phase.



Load balancing using Modbus RTU meters

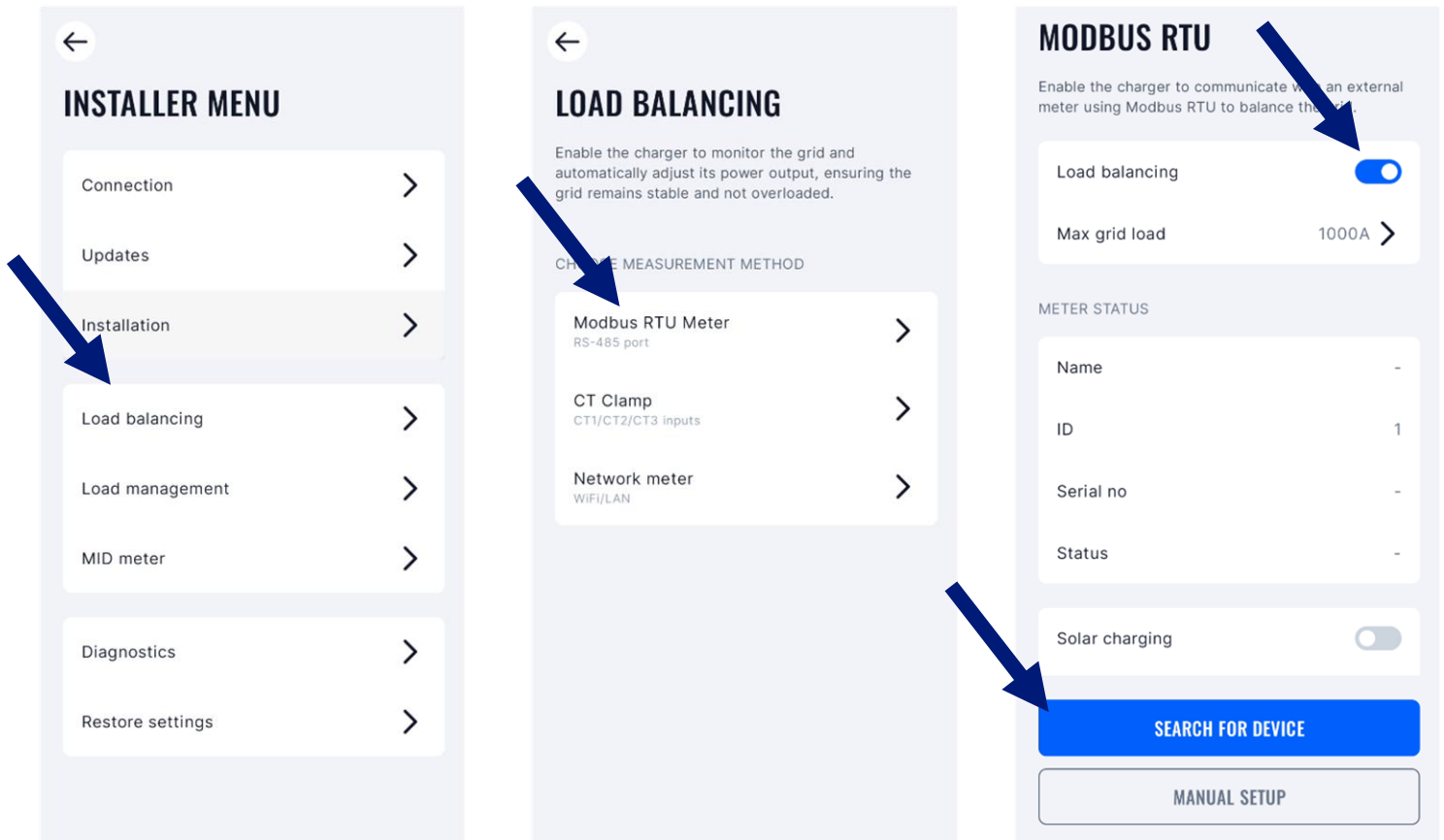
Supported Modbus RTU Smart Meters:

- Carlo Gavazzi series 1-3
 - Siemens PACxxxx
 - ABB A4x ; B2x
 - Eastron SDMxx
 - Inepro PRO380
 - Chint
 - Entes
 - Acrel
 - P1 smartstuff meter
- and more...*



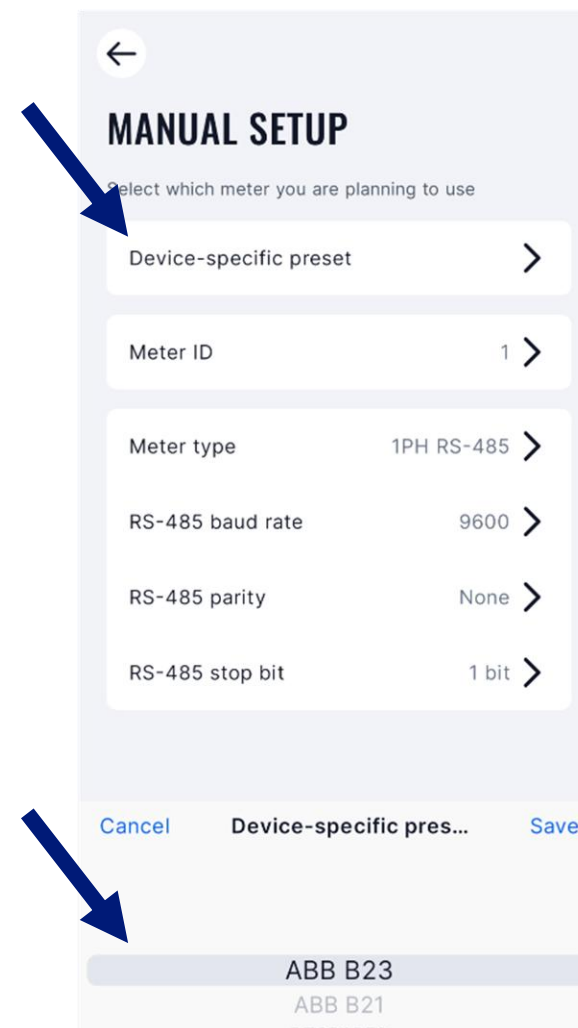
Modbus RTU Setup

- To enable the mode: go to [Load balancing](#) tab
- Select the Modbus RTU meter
- Enable load balancing
- Search for a meter, or manually set it up



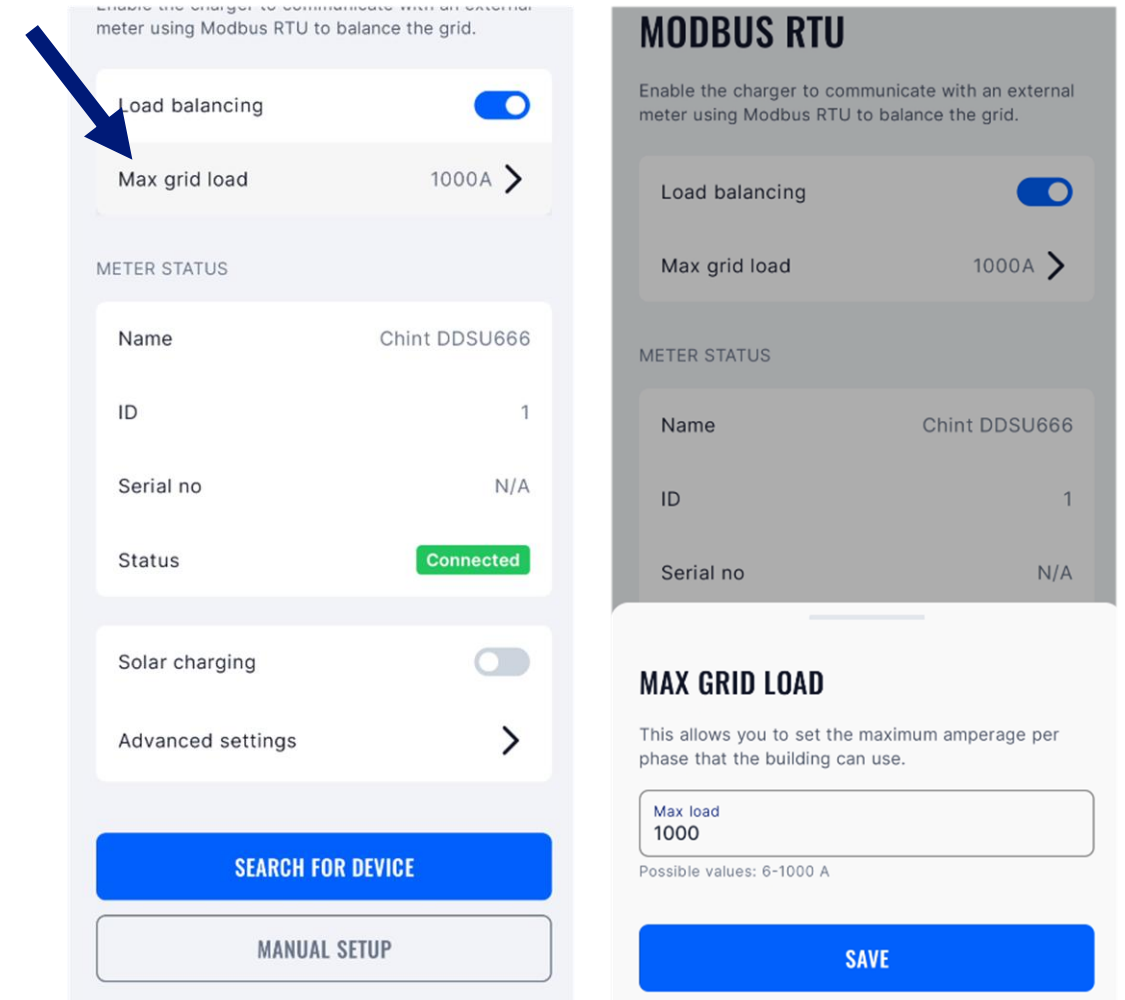
Modbus RTU Setup

- By going to default preset selection you can choose any of the supported meter models.
- However, if the supported meters settings are different from default, it's possible to adjust them manually.



Modbus RTU Setup

- Upon having a successful connection to the meter, adjust max grid load according to your own grid or breaker.



The image displays two screenshots of a mobile application interface for Modbus RTU setup. The left screenshot shows the main settings screen with a blue arrow pointing to the 'Max grid load' option. The right screenshot shows the detailed 'MAX GRID LOAD' configuration screen.

Left Screenshot (Main Settings):

- Header: Enable the charger to communicate with an external meter using Modbus RTU to balance the grid.
- Load balancing:
- Max grid load: 1000A >
- METER STATUS:
 - Name: Chint DDSU666
 - ID: 1
 - Serial no: N/A
 - Status: Connected
- Solar charging:
- Advanced settings: >
- SEARCH FOR DEVICE (blue button)
- MANUAL SETUP (grey button)

Right Screenshot (MAX GRID LOAD):

- Header: MODBUS RTU
- Header: Enable the charger to communicate with an external meter using Modbus RTU to balance the grid.
- Load balancing:
- Max grid load: 1000A >
- METER STATUS:
 - Name: Chint DDSU666
 - ID: 1
 - Serial no: N/A
- MAX GRID LOAD
- This allows you to set the maximum amperage per phase that the building can use.
- Max load: 1000
- Possible values: 6-1000 A
- SAVE (blue button)

Network meters / Modbus TCP/IP

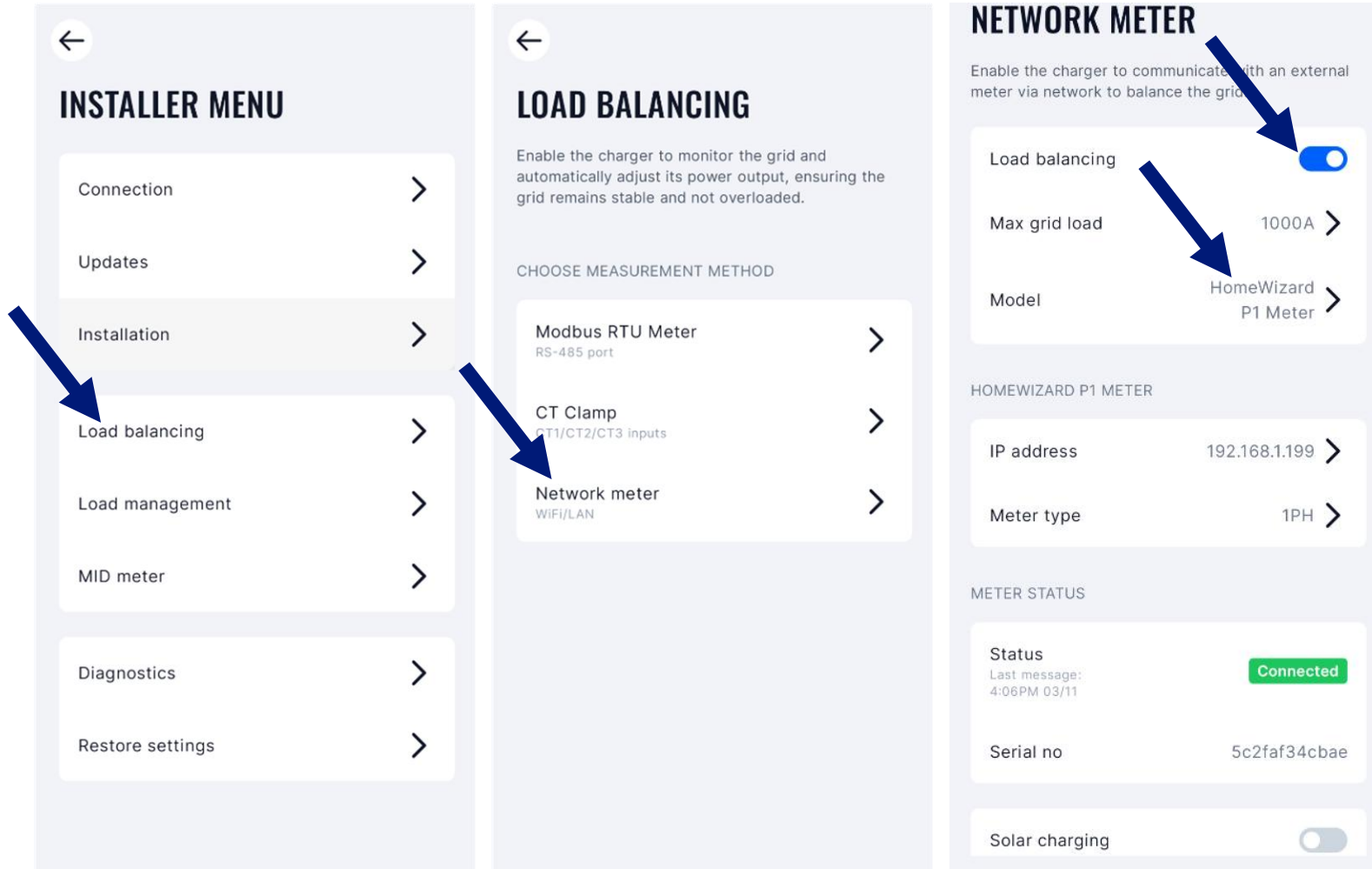
Having the charger in the same network as these meters allows us to use their data and accomplish dynamic load balancing.



Shelly and HomeWizard P1

Network meters / Modbus TCP/IP

- To enable the mode: go to load balancing tab
- Select the network meter option
- Enable load balancing
- Search for a supported model. For example: [HomeWizard P1](#) or [Shelly Pro meter](#)



The image displays three sequential screenshots from the Teltonika app interface, illustrating the steps to enable network metering. Blue arrows indicate the navigation path from the 'INSTALLER MENU' to 'LOAD BALANCING' and then to the 'NETWORK METER' settings.

INSTALLER MENU

- Connection >
- Updates >
- Installation >
- Load balancing >**
- Load management >
- MID meter >
- Diagnostics >
- Restore settings >

LOAD BALANCING

Enable the charger to monitor the grid and automatically adjust its power output, ensuring the grid remains stable and not overloaded.

CHOOSE MEASUREMENT METHOD

- Modbus RTU Meter
RS-485 port >
- CT Clamp
CT1/CT2/CT3 inputs >
- Network meter
WiFi/LAN >**

NETWORK METER

Enable the charger to communicate with an external meter via network to balance the grid.

- Load balancing**
- Max grid load 1000A >
- Model **HomeWizard P1 Meter** >

HOMEWIZARD P1 METER

- IP address 192.168.1.199 >
- Meter type 1PH >

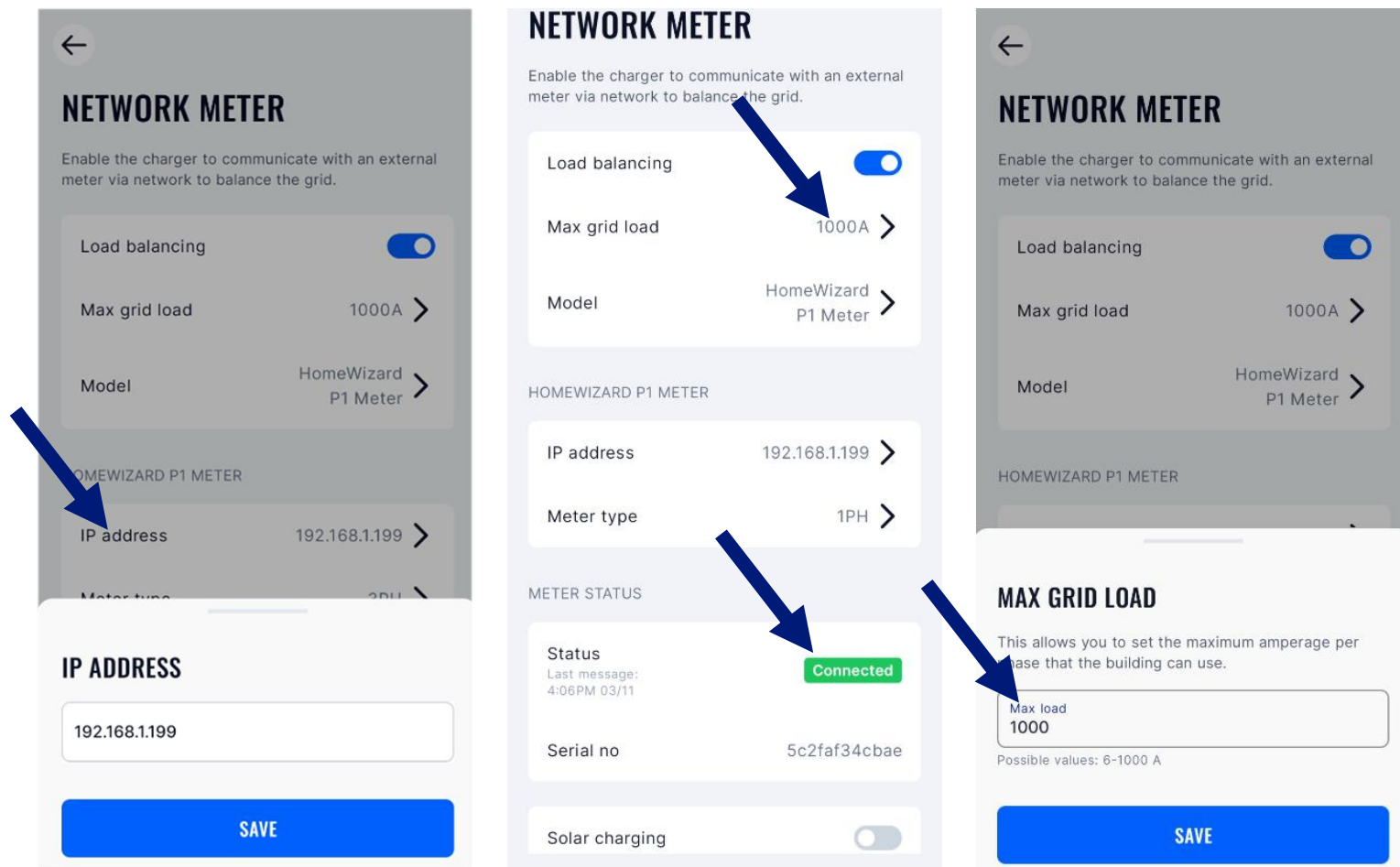
METER STATUS

- Status** Connected
Last message: 4:06PM 03/11
- Serial no 5c2faf34cbae

Solar charging

Network meters / Modbus TCP/IP

- By knowing the meters IP address configure the charger to connect to it
- Upon successful connection adjust max grid load according to your own grid.



The image displays three sequential screenshots of a mobile application interface for configuring a network meter. The first screenshot shows the 'NETWORK METER' settings page with a blue arrow pointing to the 'IP address' field. The second screenshot shows the 'NETWORK METER' settings page with a blue arrow pointing to the 'Load balancing' toggle and another blue arrow pointing to the 'Connected' status. The third screenshot shows the 'MAX GRID LOAD' settings page with a blue arrow pointing to the 'Max load' input field.

NETWORK METER

Enable the charger to communicate with an external meter via network to balance the grid.

Load balancing

Max grid load 1000A >

Model HomeWizard P1 Meter >

HOMEWIZARD P1 METER

IP address 192.168.1.199 >

Meter type 2PH >

IP ADDRESS

192.168.1.199

SAVE

NETWORK METER

Enable the charger to communicate with an external meter via network to balance the grid.

Load balancing

Max grid load 1000A >

Model HomeWizard P1 Meter >

HOMEWIZARD P1 METER

IP address 192.168.1.199 >

Meter type 1PH >

METER STATUS

Status **Connected**

Last message: 4:06PM 03/11

Serial no 5c2faf34cbae

Solar charging

MAX GRID LOAD

This allows you to set the maximum amperage per phase that the building can use.

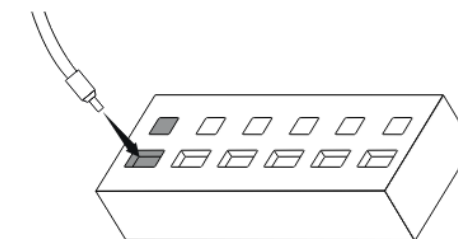
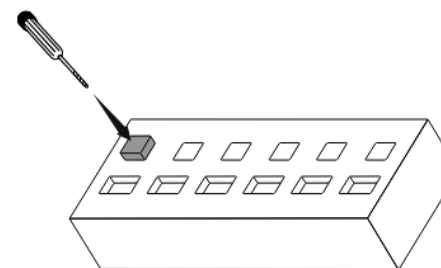
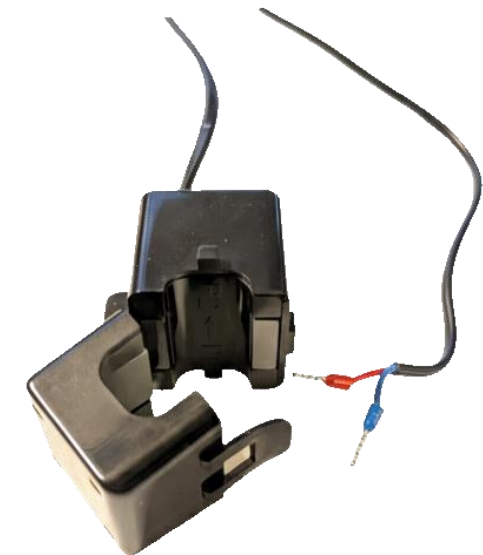
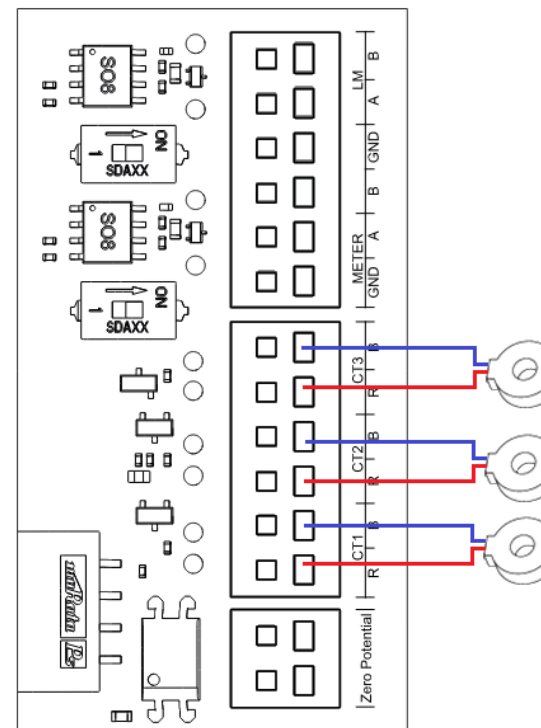
Max load 1000

Possible values: 6-1000 A

SAVE

CT clamps

- Current transformer (CT) clamps allow for a fast and easy installation when the electric distribution panel is close to the EV charger install location.
- The CT clamps are put on the entry power lines in the distribution box and measure the total house load going through them, providing the direct info to the EV charger.
- EVC2 has a dedicated terminal for each CT clamp.

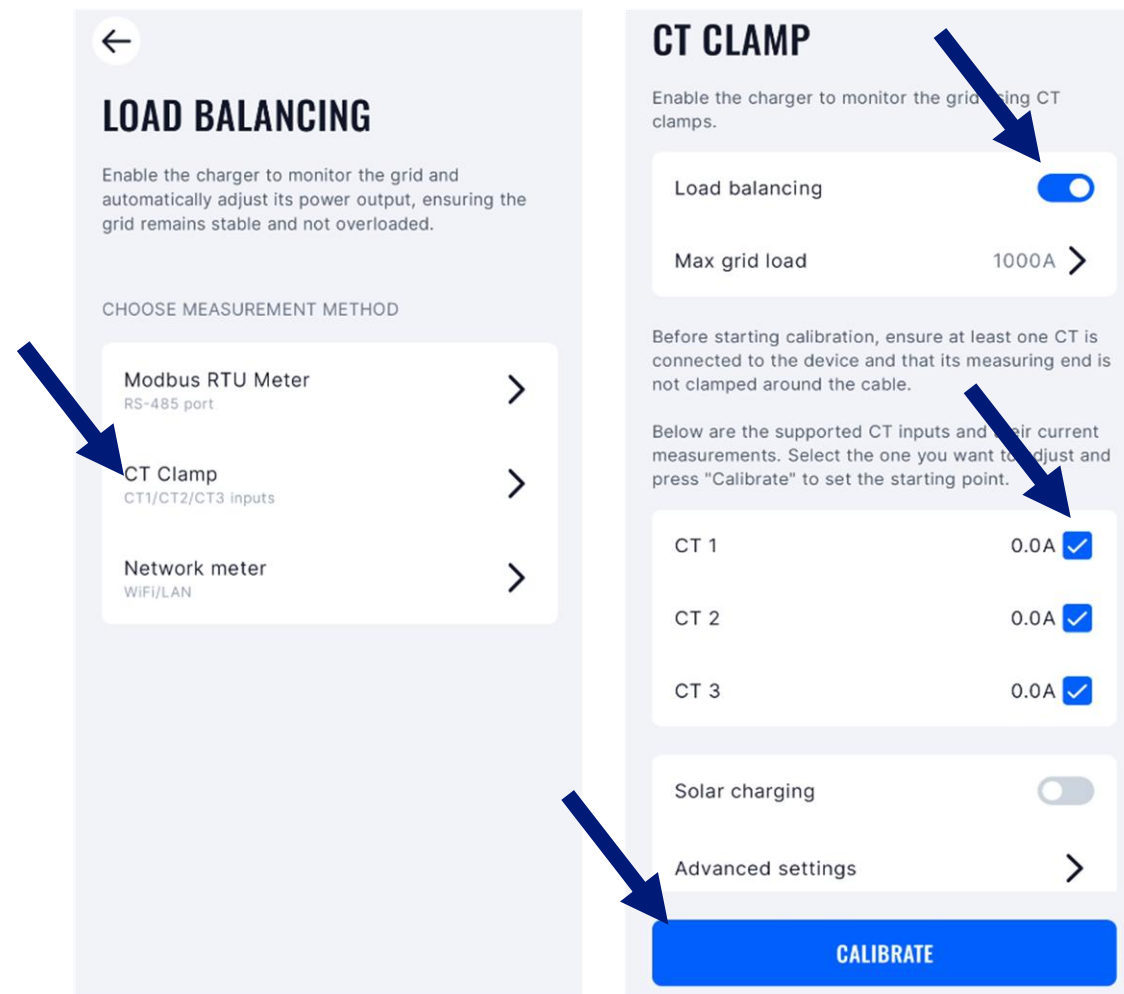


To insert the wire, keep the lock button pressed with a screwdriver

CT clamps

- To enable the mode: go to load balancing tab
- Select the CT clamp feature
- Enable load balancing
- Select all CT clamps that the charger will use and click calibrate.

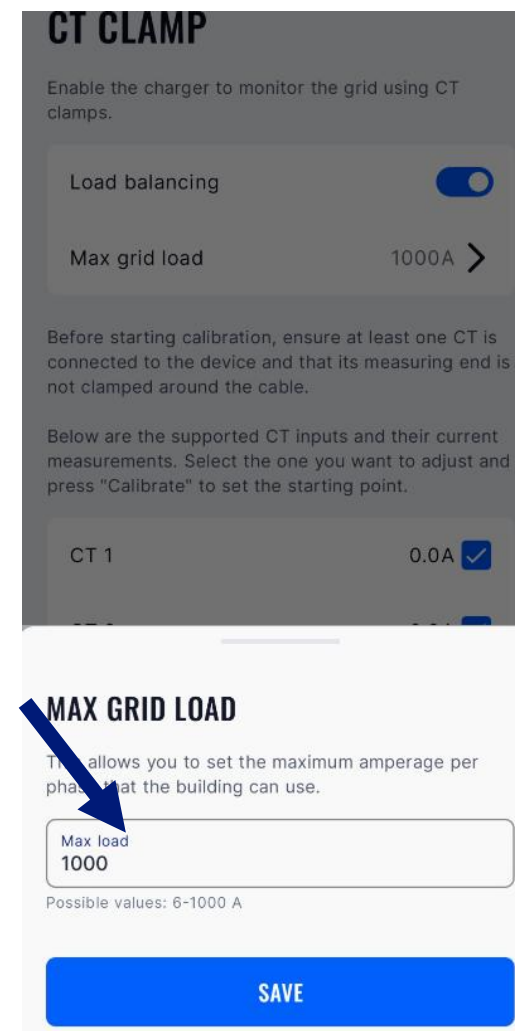
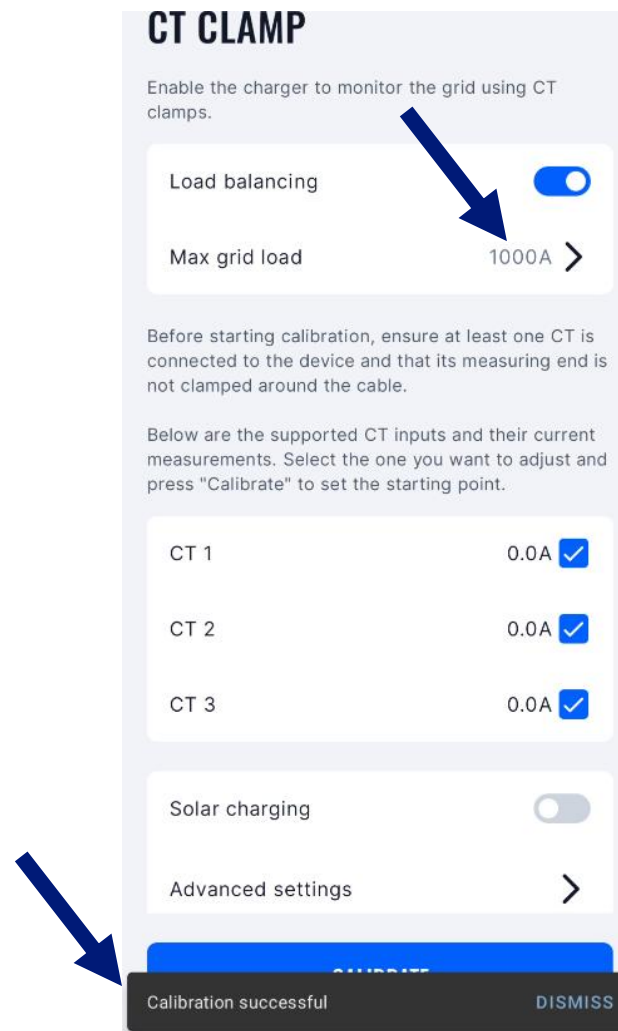
Before calibration, CT clamp must be connected to the port, but not clamped around the cable yet



The image displays two screenshots from the TELTONIKA app. The left screenshot shows the 'LOAD BALANCING' settings screen. It features a back arrow at the top left, the title 'LOAD BALANCING', and a description: 'Enable the charger to monitor the grid and automatically adjust its power output, ensuring the grid remains stable and not overloaded.' Below this is a section titled 'CHOOSE MEASUREMENT METHOD' with three options: 'Modbus RTU Meter' (RS-485 port), 'CT Clamp' (CT1/CT2/CT3 inputs), and 'Network meter' (WiFi/LAN). A blue arrow points to the 'CT Clamp' option. The right screenshot shows the 'CT CLAMP' settings screen. It has a back arrow at the top left, the title 'CT CLAMP', and a description: 'Enable the charger to monitor the grid using CT clamps.' Below this is a 'Load balancing' toggle (turned on) and a 'Max grid load' field set to '1000A'. A blue arrow points to the 'Load balancing' toggle. Further down, there is a warning: 'Before starting calibration, ensure at least one CT is connected to the device and that its measuring end is not clamped around the cable.' Below this is another instruction: 'Below are the supported CT inputs and their current measurements. Select the one you want to adjust and press "Calibrate" to set the starting point.' A table lists three CT inputs: 'CT 1' (0.0A), 'CT 2' (0.0A), and 'CT 3' (0.0A), each with a checked checkbox. A blue arrow points to the 'CT 1' checkbox. At the bottom of the screen is a blue 'CALIBRATE' button. A blue arrow points to this button.

CT clamps

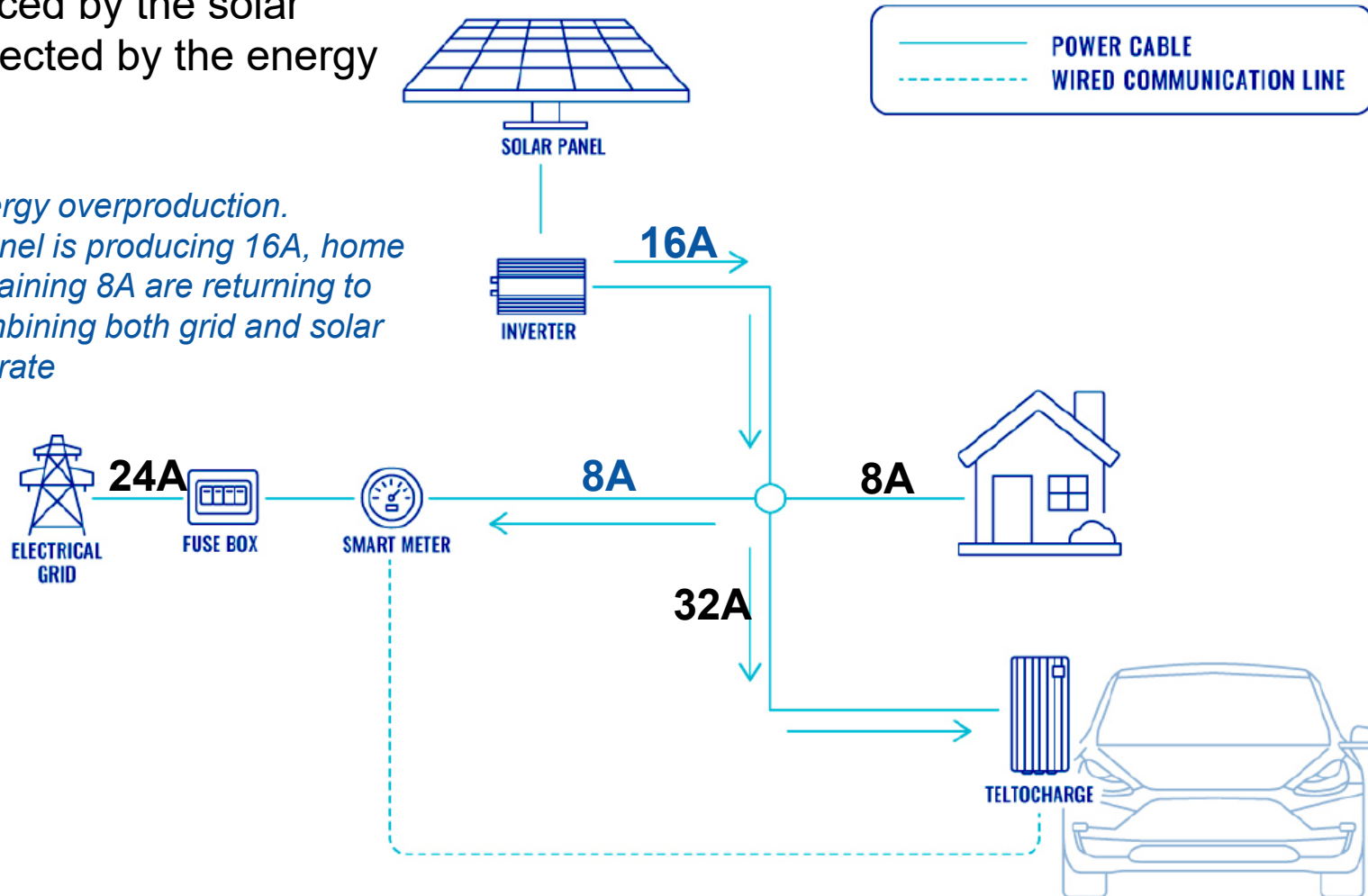
- Upon successful calibration, set the max grid load according to your own grid.



Dynamic Load Balancing using solar energy

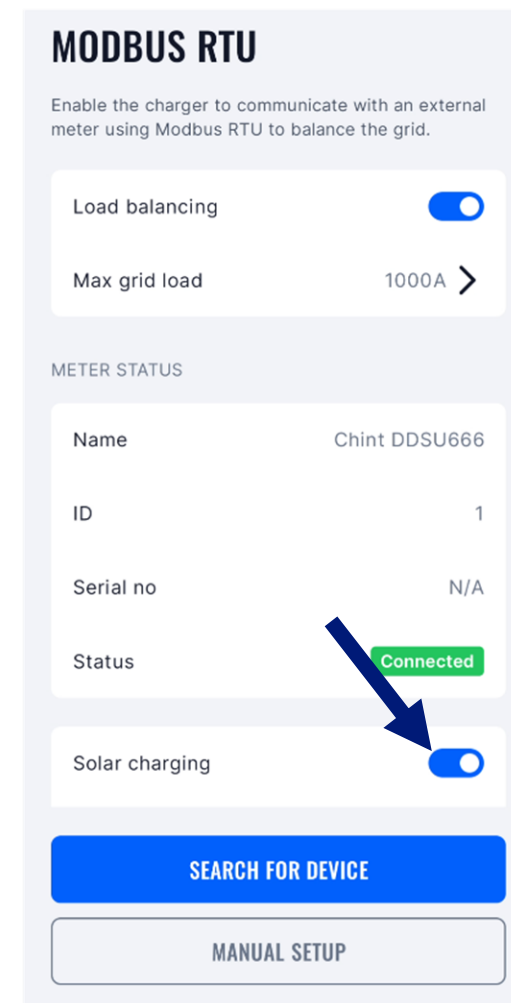
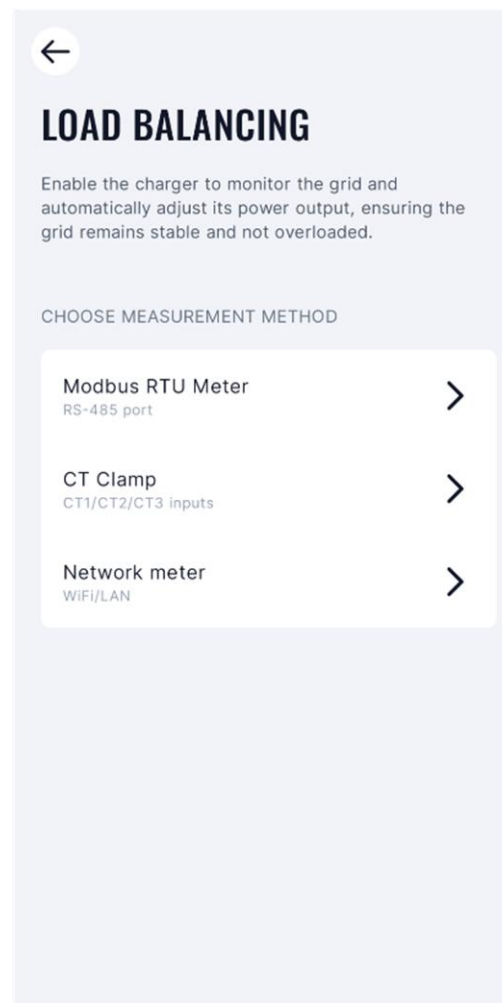
- The energy produced by the solar panel must be detected by the energy meter.

We work with solar energy overproduction. In the picture - solar panel is producing 16A, home uses 8A, therefore remaining 8A are returning to grid and charger is combining both grid and solar to achieve 32A charge rate



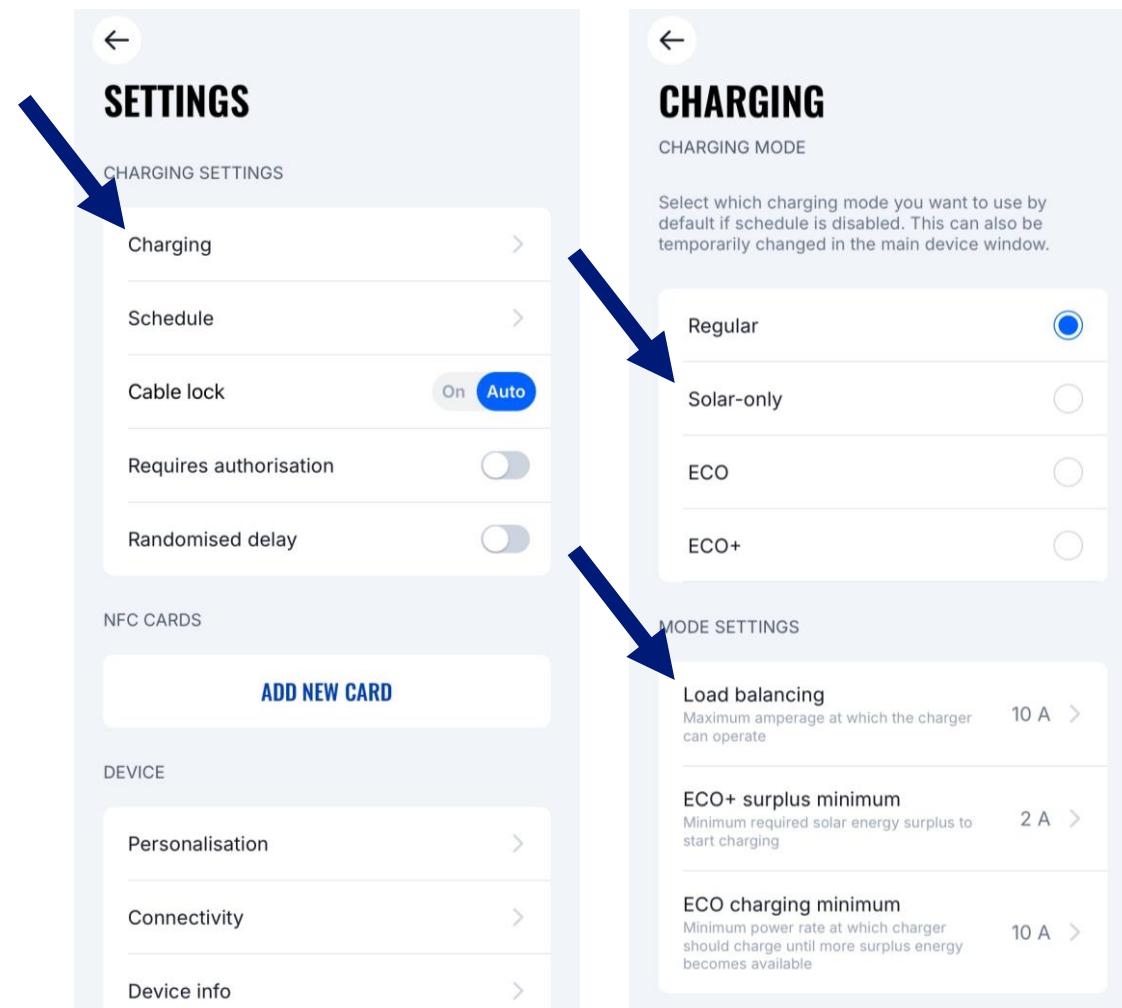
Solar charging

- Upon successfully connecting one of the meters go to its settings
- Turn the **Solar charging** option on

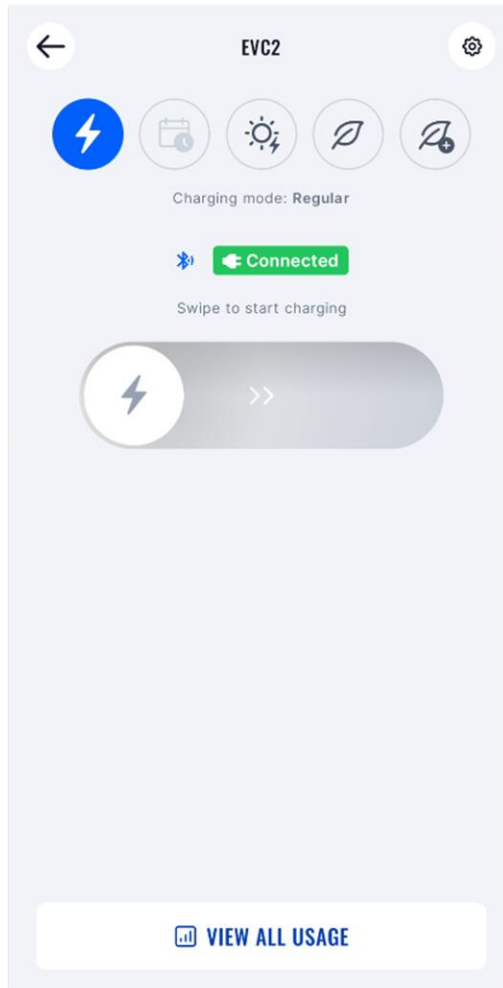




Solar charging modes


- Solar charging modes can be switched and configured in the settings menu
- Choose one of the desired modes and adjust its settings accordingly



Solar charging modes



-  **Solar only charging** - In this profile, the charging is using only solar power. The minimum required value from solar is 6A. If there is less than 6A on solar production, the charger will be “on hold”
-  **ECO charging profile** - In this profile, we’re charging using solar energy but supplement it with grid energy. The user sets the ECO charging minimum value, which determines the minimum charging current. It will still charge using grid if there is no solar available, and if solar generation exceeds minimum value – it will charge at more.

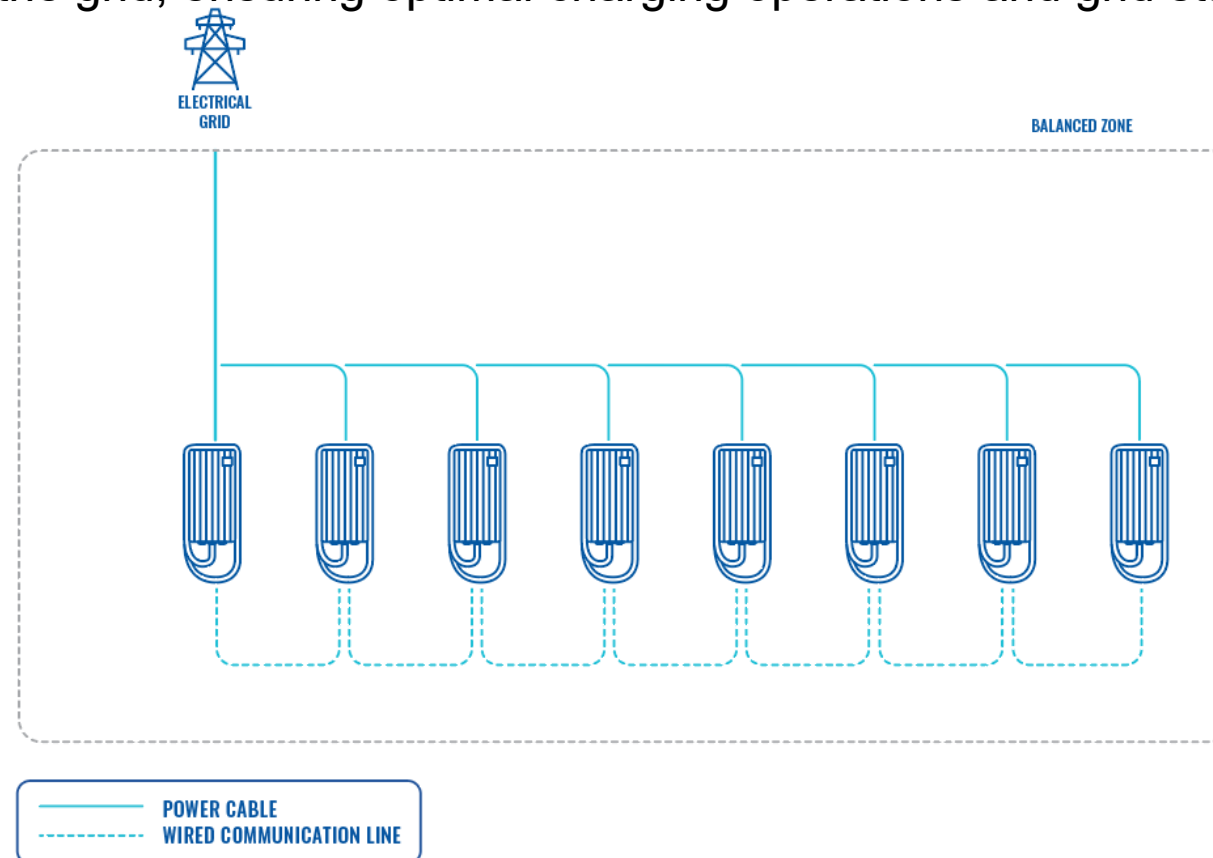
Example:
ECO charging minimum value set to 10 A
If 5 A (from solar) + 5 A (from grid) = 10 A charging current
If 16 A (from solar) + 0 A (from grid) = 16 A charging current
-  **ECO+ charging profile** – only difference is that it wont charge at all if solar power is not meeting the required configured minimum value.

Example:
ECO+ surplus minimum value set to 1 A
0 A (from solar) = charging process is not initiated
1 A (from solar) + 5 A (from grid) = 6 A charging current
10 A (from solar) + 0 A (from grid) = 10 A charging current

Dynamic Load Management using Modbus RTU

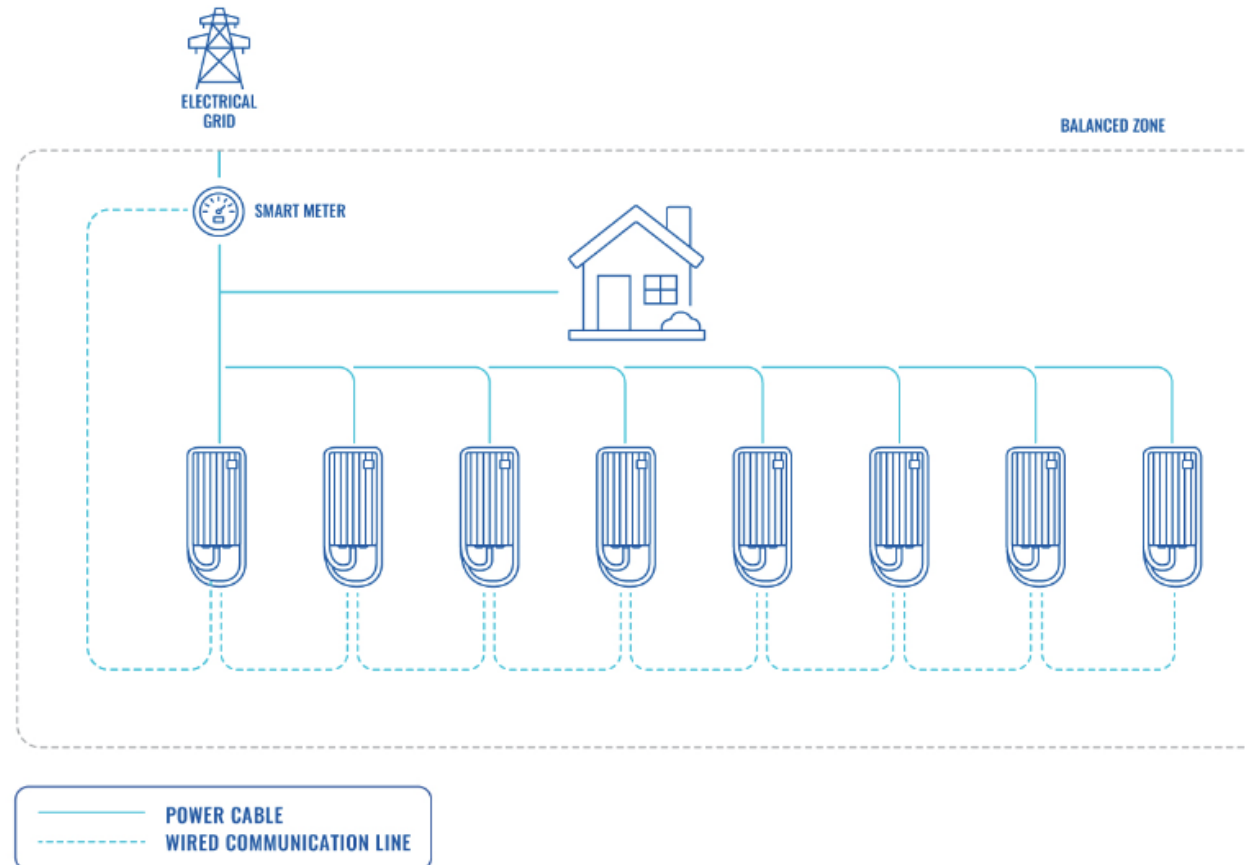
Dynamic load management is a sophisticated feature that empowers users to efficiently control electric load by managing a group of chargers installed within a single circuit.

Through Modbus communication, the group dynamically adjusts their charging power in response to the load on the grid, ensuring optimal charging operations and grid stability.



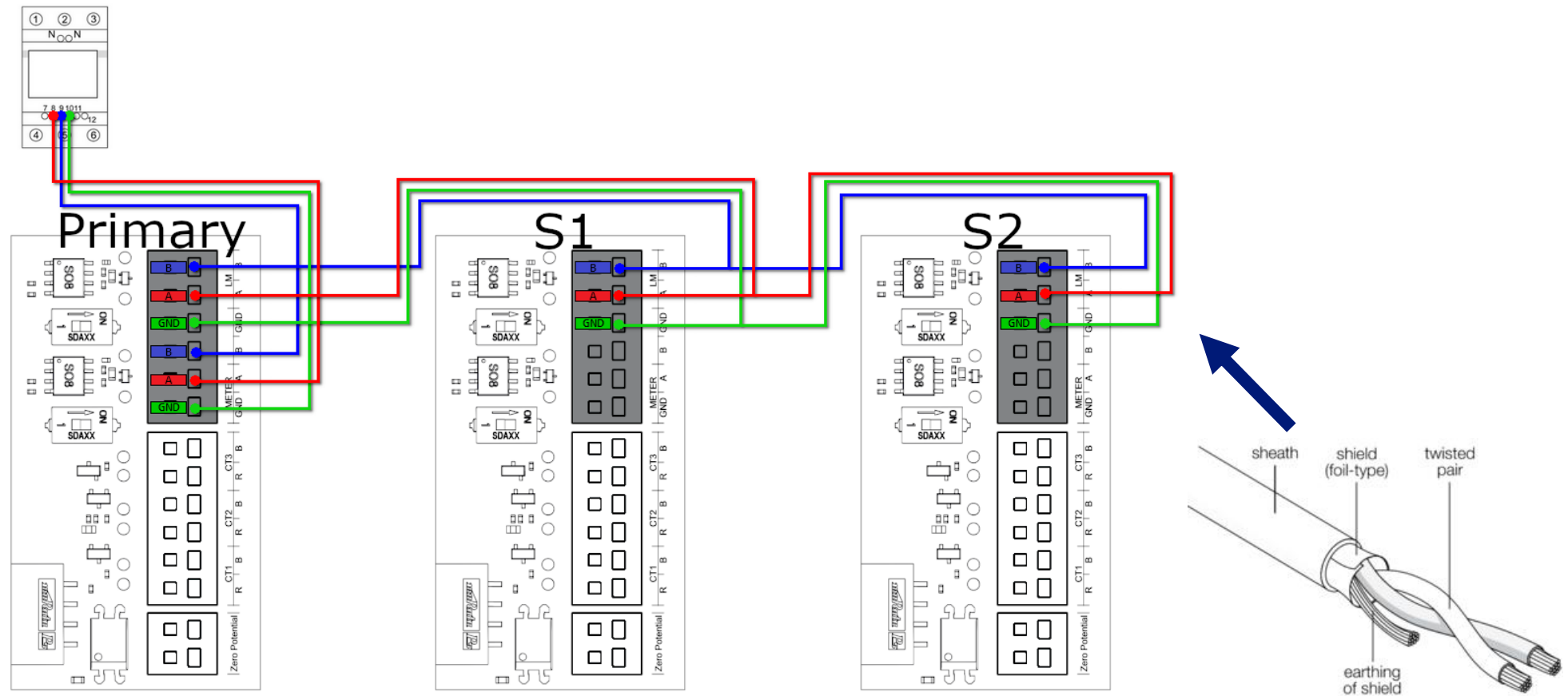
Dynamic Load Management using Modbus RTU

This configuration enables users to efficiently manage the electric load between chargers and other appliances. By leveraging the capabilities of a smart meter, precise control and optimization of the overall load can be achieved.



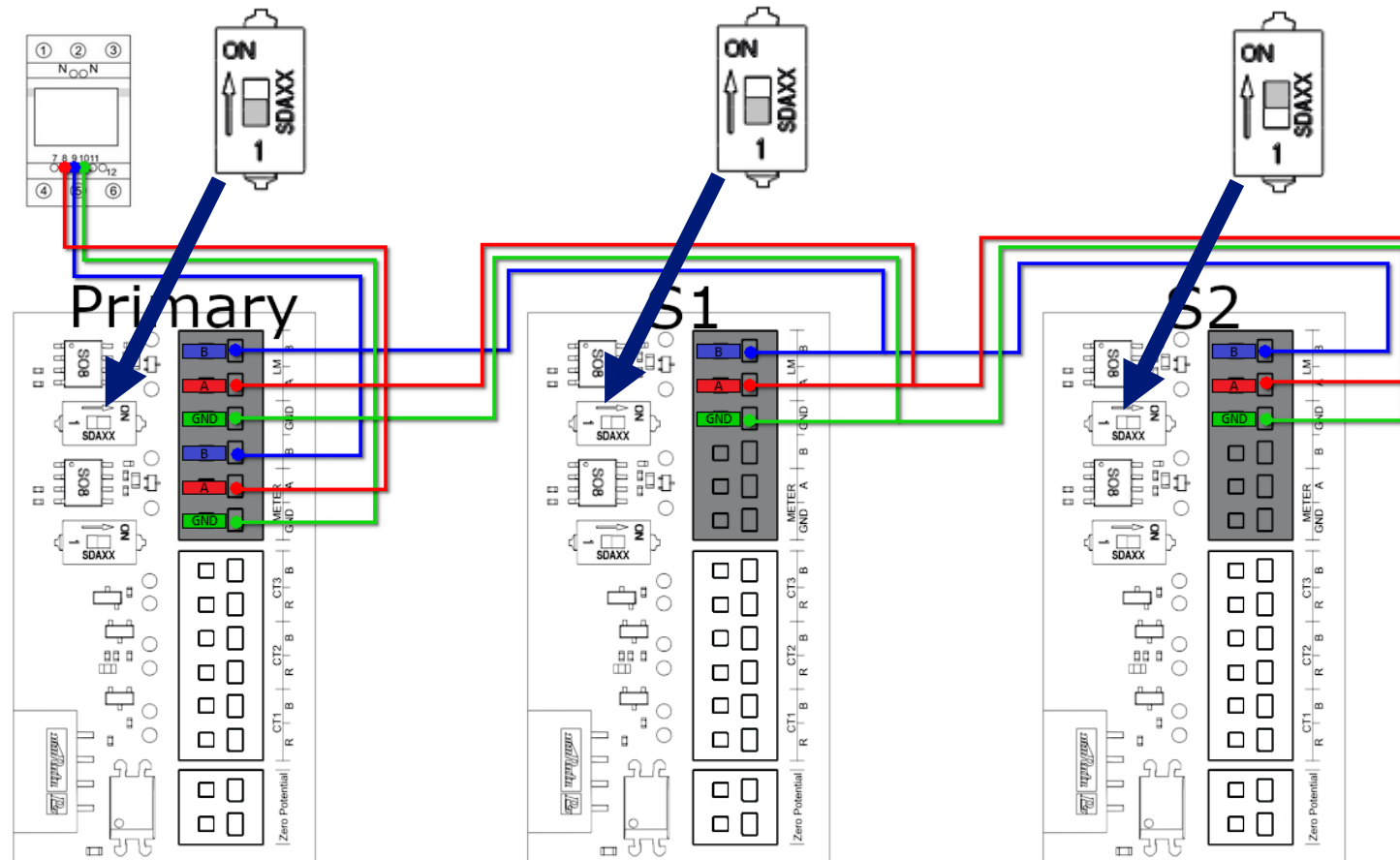
Dynamic Load Management using Modbus RTU

Communication is governed by a designated "**Primary**" charger, dictating instructions to the remaining "**Secondary**" chargers. These chargers must be interconnected serially (daisy chained), each requiring the use of UTP twisted pair cables for communication via the A and B pins.



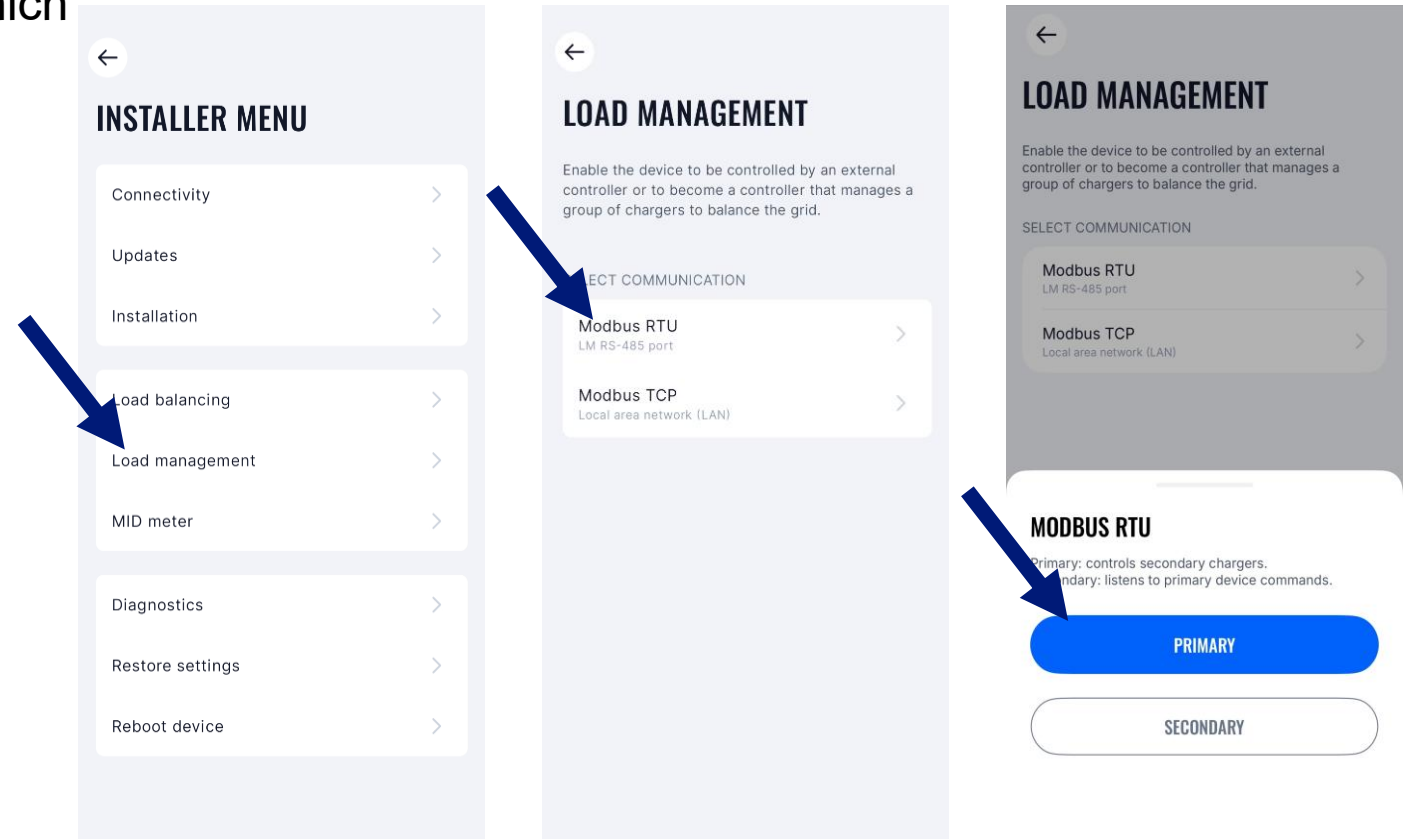
Dynamic Load Management using Modbus RTU

Tip: when multiple devices are connected in daisy chain configuration. Make sure that the first and the last device in the line have their designated RS485 switches switched to “**ON**” position, while all other devices be switched “**OFF**”. In this example, first device on the line is a meter – primary station switch is set to “**OFF**”. Setups with no meter would require the primary device switch to be set as “**ON**”.



Dynamic Load Management using Modbus RTU

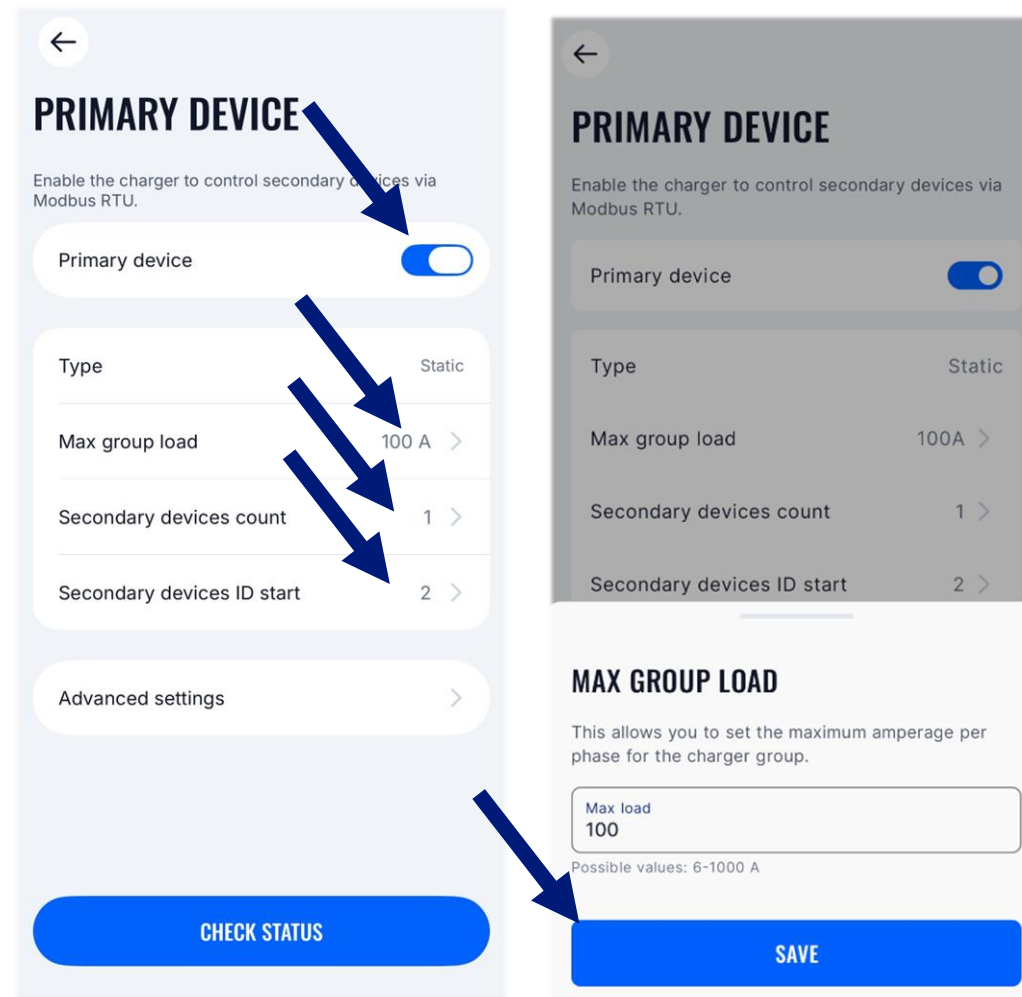
- This setting designates the charger as the **primary** charger
- It should only be enabled for one charger, which will handle all the calculations for the group



Dynamic Load Management using Modbus RTU

- Enable the primary device function
- Set the **Max group load** according to the rating input of power allocated to the group
- Secondary devices count – how many chargers are connected to the primary?
- Secondary devices ID start – set the Modbus device ID starting digit

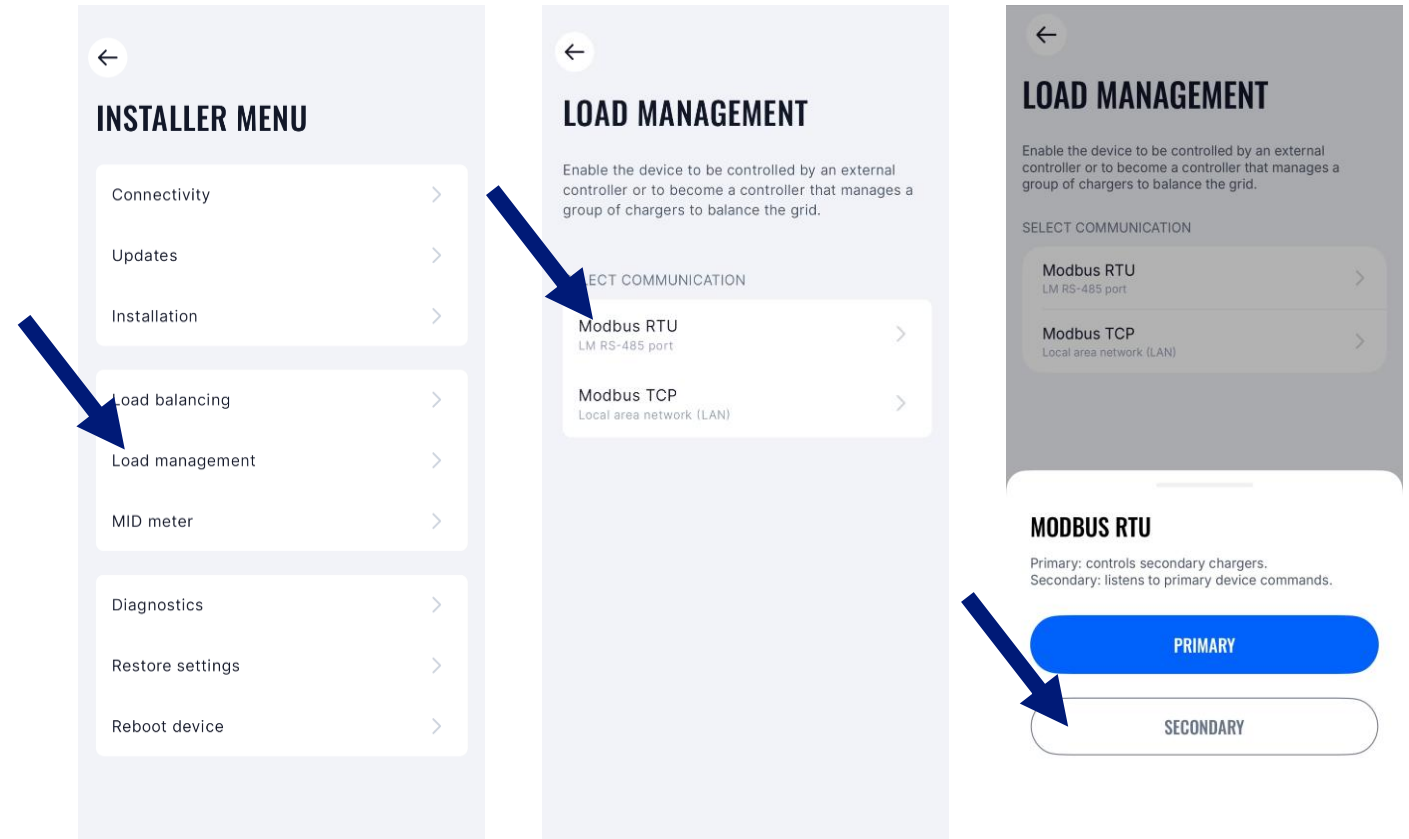
note: if a meter is connected to the primary device, secondary device start IDs must not include meters address on Modbus line



The image displays two screenshots of a mobile application interface for configuring a primary device. The left screenshot shows the 'PRIMARY DEVICE' settings page, which includes a toggle for 'Primary device', a 'Type' dropdown set to 'Static', and input fields for 'Max group load' (100 A), 'Secondary devices count' (1), and 'Secondary devices ID start' (2). A 'CHECK STATUS' button is located at the bottom. The right screenshot shows the 'MAX GROUP LOAD' settings page, which includes a text input field for 'Max load' set to '100' and a 'SAVE' button at the bottom. Blue arrows indicate the flow of configuration from the primary device settings to the max group load settings.

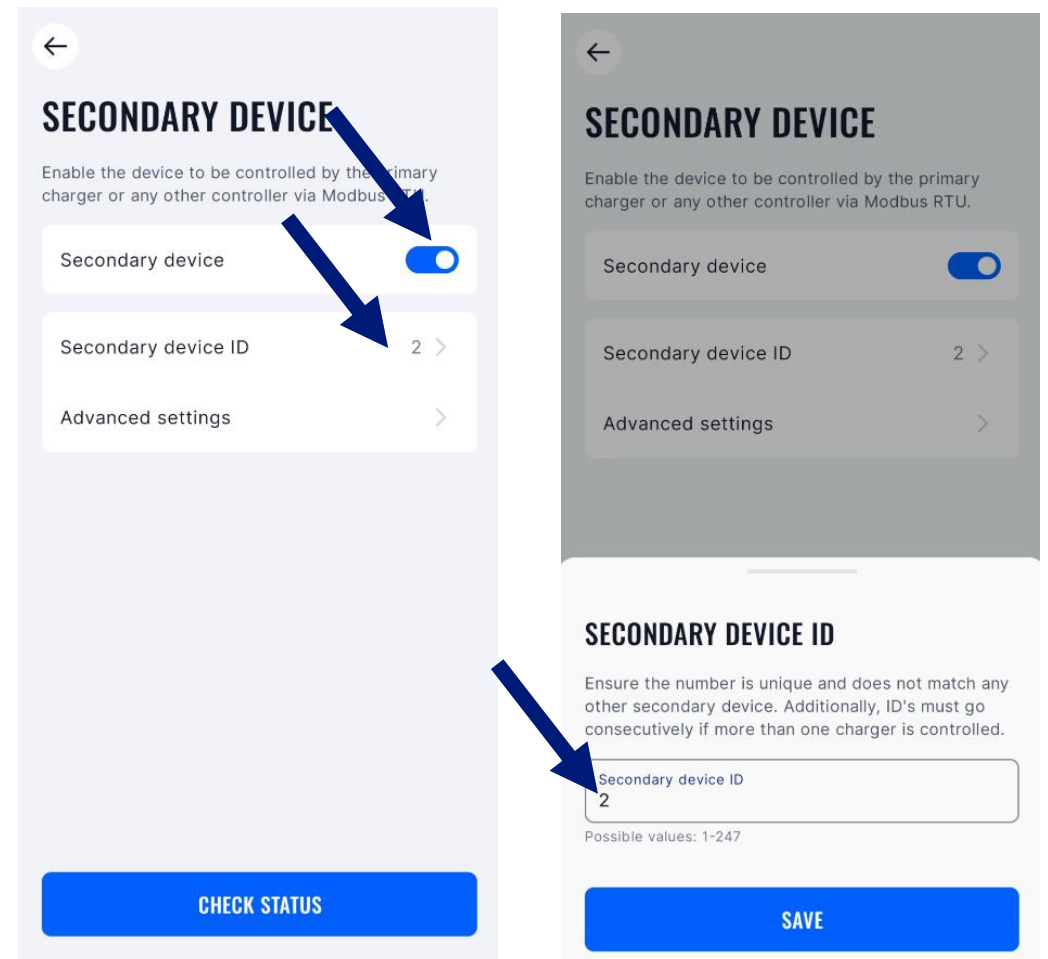
Dynamic Load Management using Modbus RTU

- After setting the primary device, configuration must be done for every secondary device
- This setting designates the charger as the **secondary** charger



Dynamic Load Management using Modbus RTU

- Set the device as **secondary**
- Check its device **ID**
- Increment every other devices **ID** by 1 so the primary device can differentiate between secondary devices



SECONDARY DEVICE

Enable the device to be controlled by the primary charger or any other controller via Modbus RTU.

Secondary device

Secondary device ID 2 >

Advanced settings >

CHECK STATUS

SECONDARY DEVICE ID

Ensure the number is unique and does not match any other secondary device. Additionally, ID's must go consecutively if more than one charger is controlled.

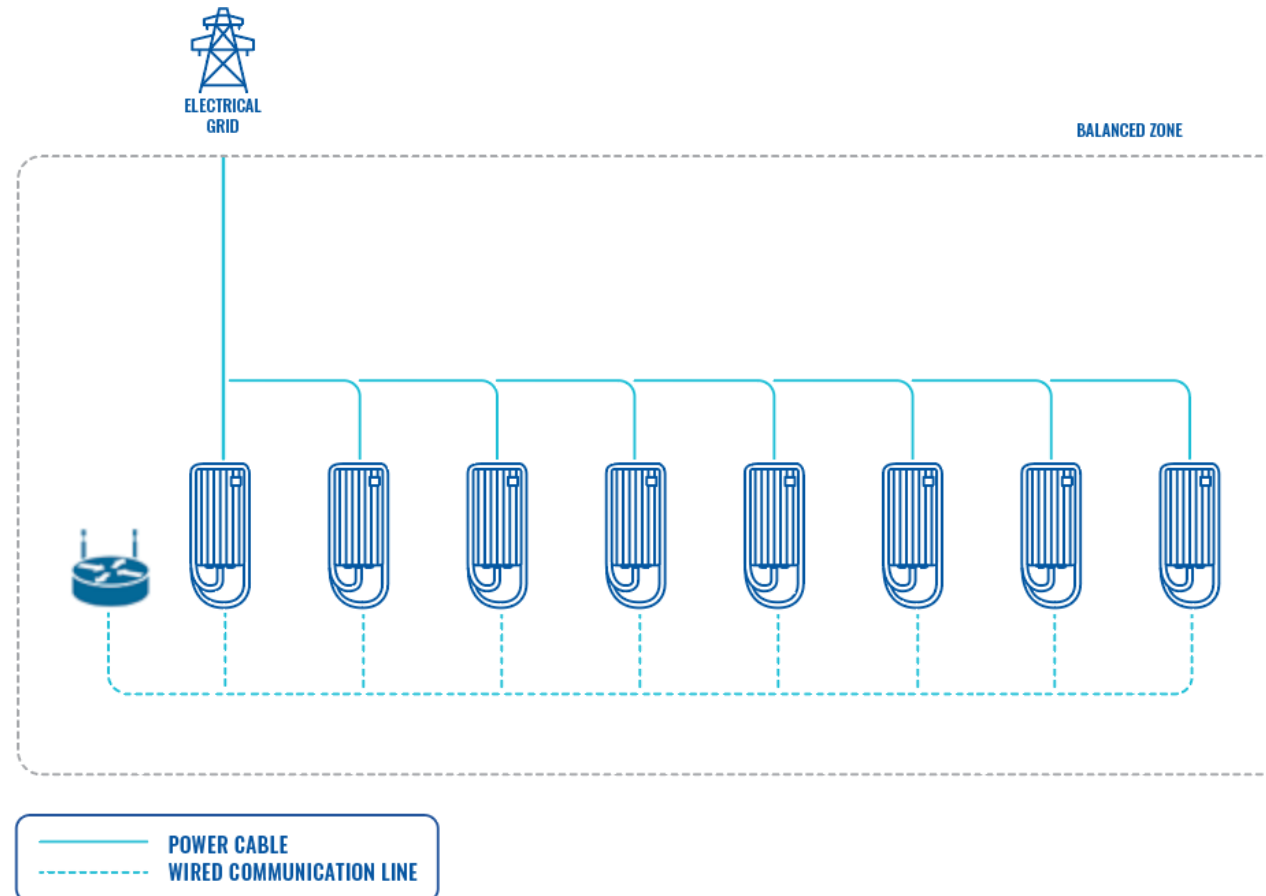
Secondary device ID
2

Possible values: 1-247

SAVE

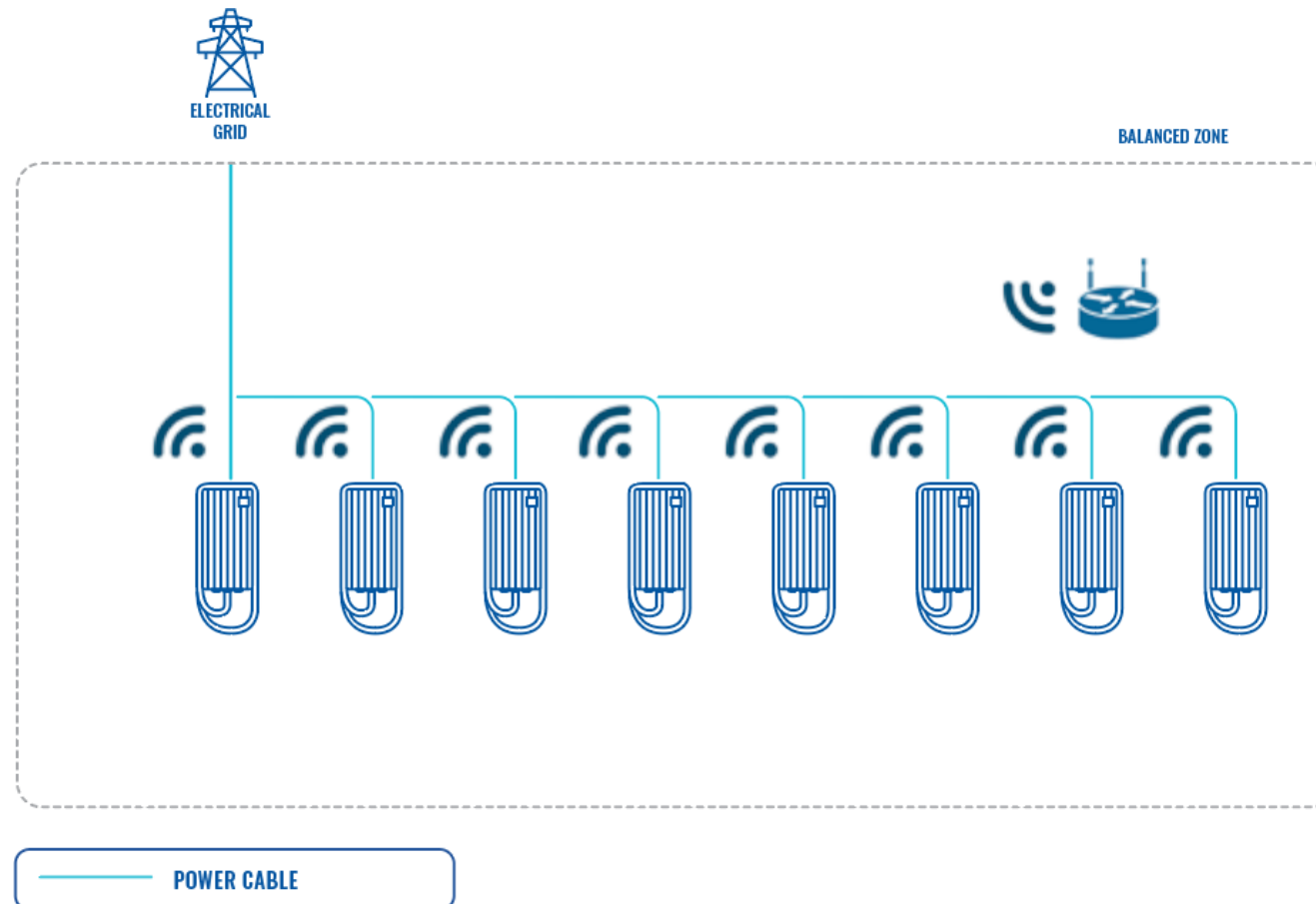
Dynamic Load Management TCP over LAN

Dynamic load management can be done using LAN connection by having the group of chargers connected to the same network



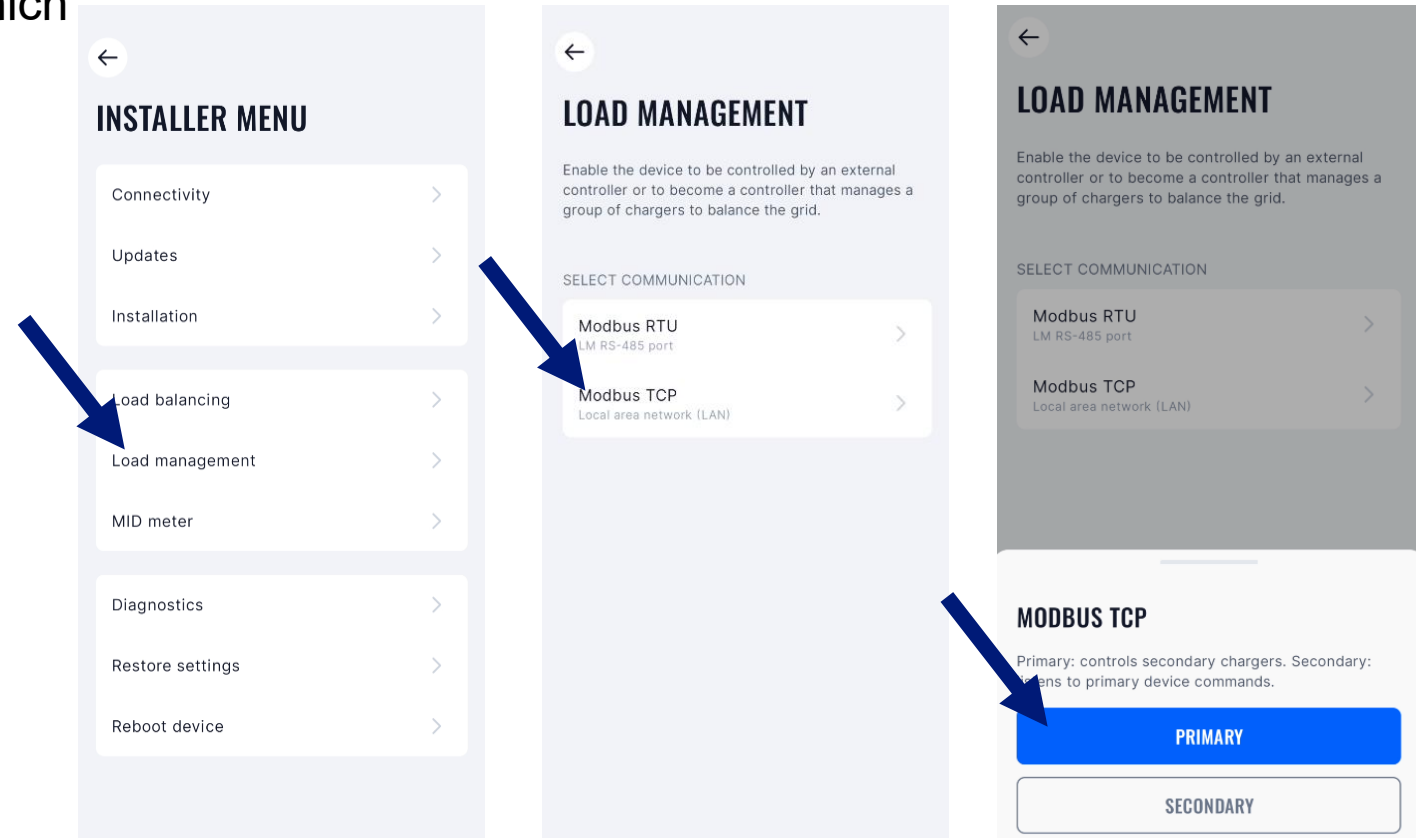
Dynamic Load Management TCP/IP over WiFi

The group can also be connected over WiFi



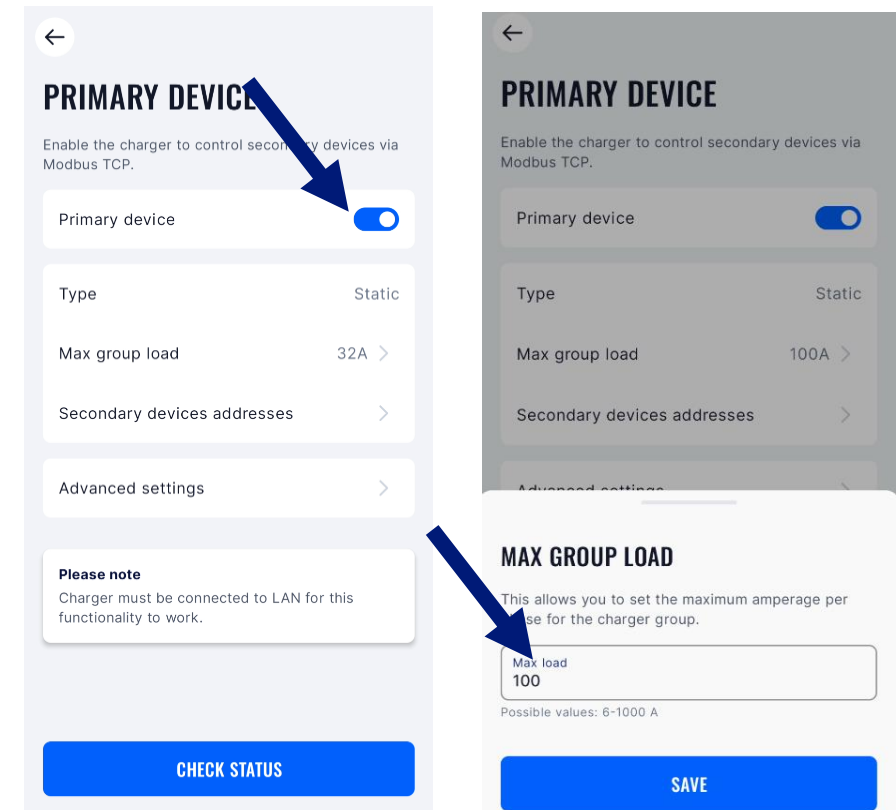
Dynamic Load Management using Modbus TCP/IP

- This setting designates the charger as the **primary** charger
- It should only be enabled for one charger, which will handle all the calculations for the group



Dynamic Load Management using Modbus TCP/IP

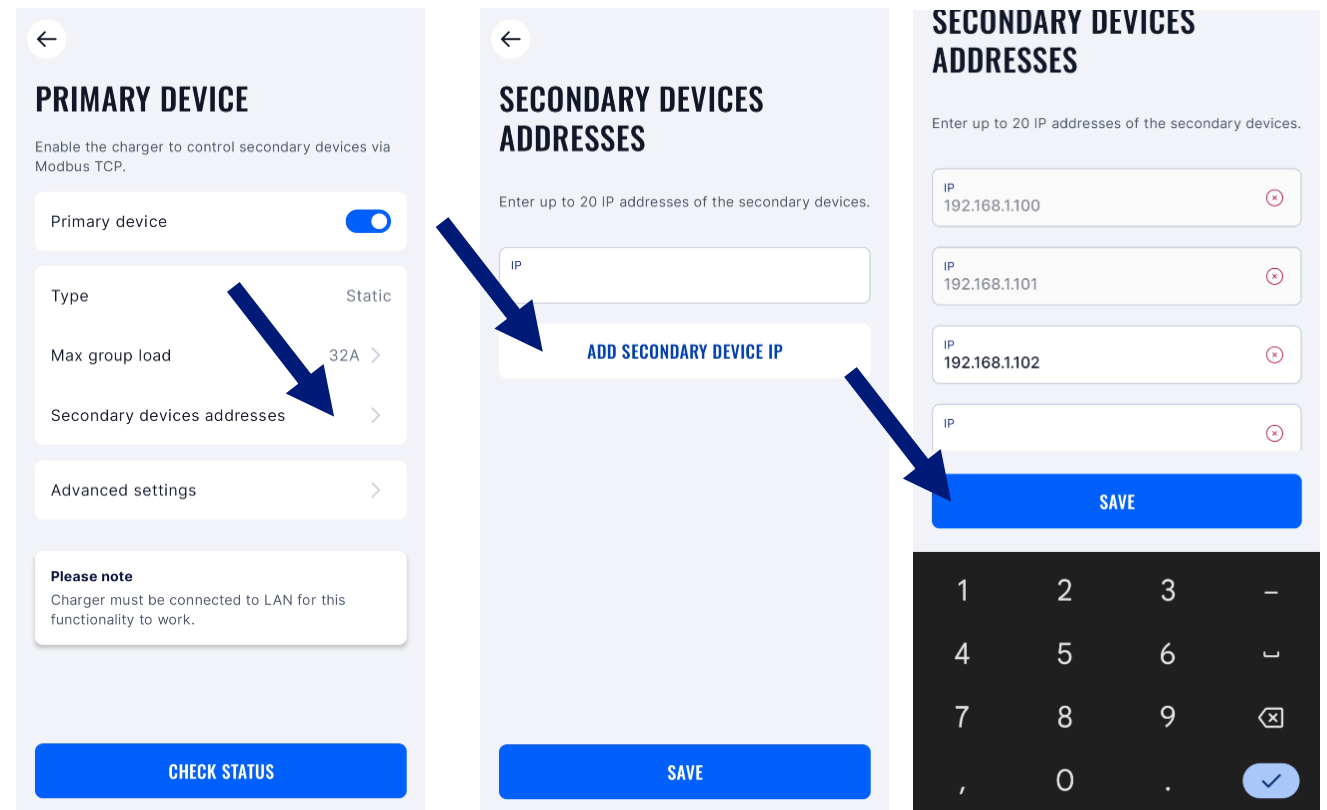
- Enable the primary device function
- Set the **Max group load** according to the rating input of power allocated to the group



Dynamic Load Management using Modbus TCP/IP

- Start adding secondary devices by their IP address and save configuration

note: IP addresses must be set as static in your router settings



The image displays three sequential screenshots of a mobile application interface for configuring dynamic load management.

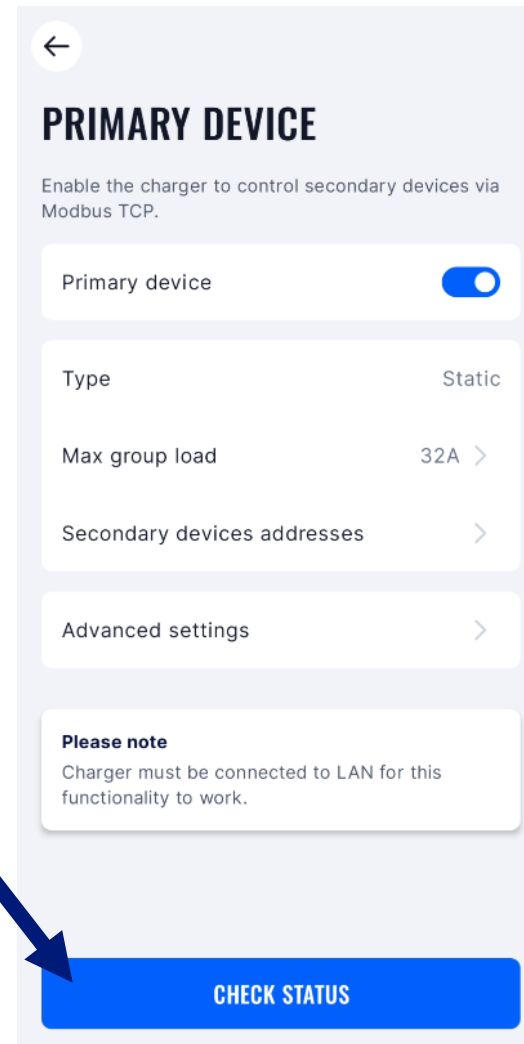
Primary Device Configuration: The first screenshot shows the 'PRIMARY DEVICE' settings. A toggle for 'Primary device' is turned on. The 'Type' is set to 'Static'. The 'Max group load' is set to '32A'. The 'Secondary devices addresses' option is highlighted with a blue arrow pointing to the next screen.

Secondary Devices Addresses Entry: The second screenshot shows the 'SECONDARY DEVICES ADDRESSES' screen. It features an 'IP' input field and a prominent blue button labeled 'ADD SECONDARY DEVICE IP', which is also pointed to by a blue arrow.

Secondary Devices Addresses List: The third screenshot shows a list of 'SECONDARY DEVICES ADDRESSES'. It contains three entries, each with an 'IP' field and a red 'X' icon for deletion. The IP addresses listed are 192.168.1.100, 192.168.1.101, and 192.168.1.102. A blue 'SAVE' button is visible at the bottom of the list, and a numeric keypad is shown below it.

Dynamic Load Management using Modbus TCP/IP

- Upon successfully adding IP addresses check status to confirm connection



←

PRIMARY DEVICE

Enable the charger to control secondary devices via Modbus TCP.

Primary device

Type Static

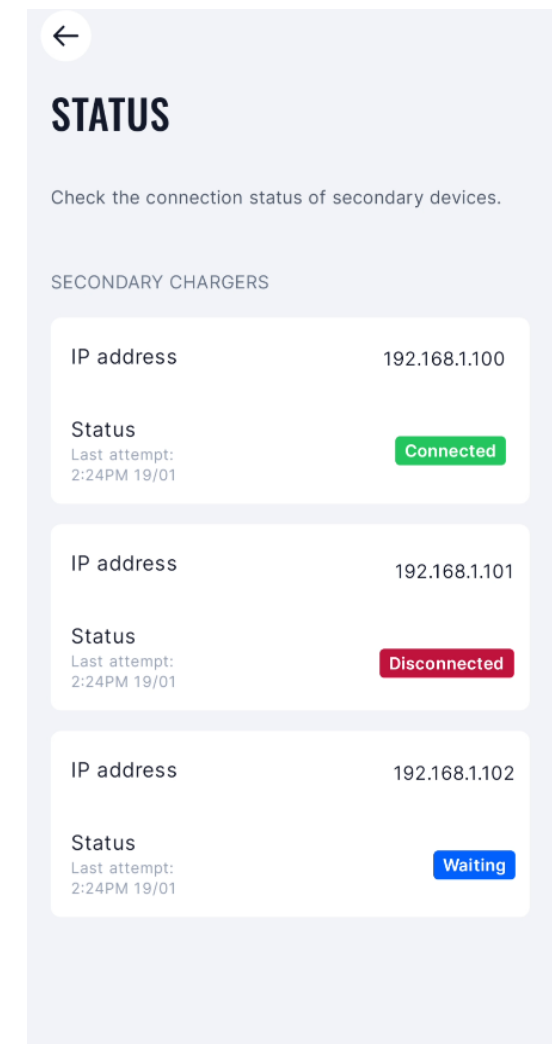
Max group load 32A >

Secondary devices addresses >

Advanced settings >

Please note
Charger must be connected to LAN for this functionality to work.

CHECK STATUS



←

STATUS

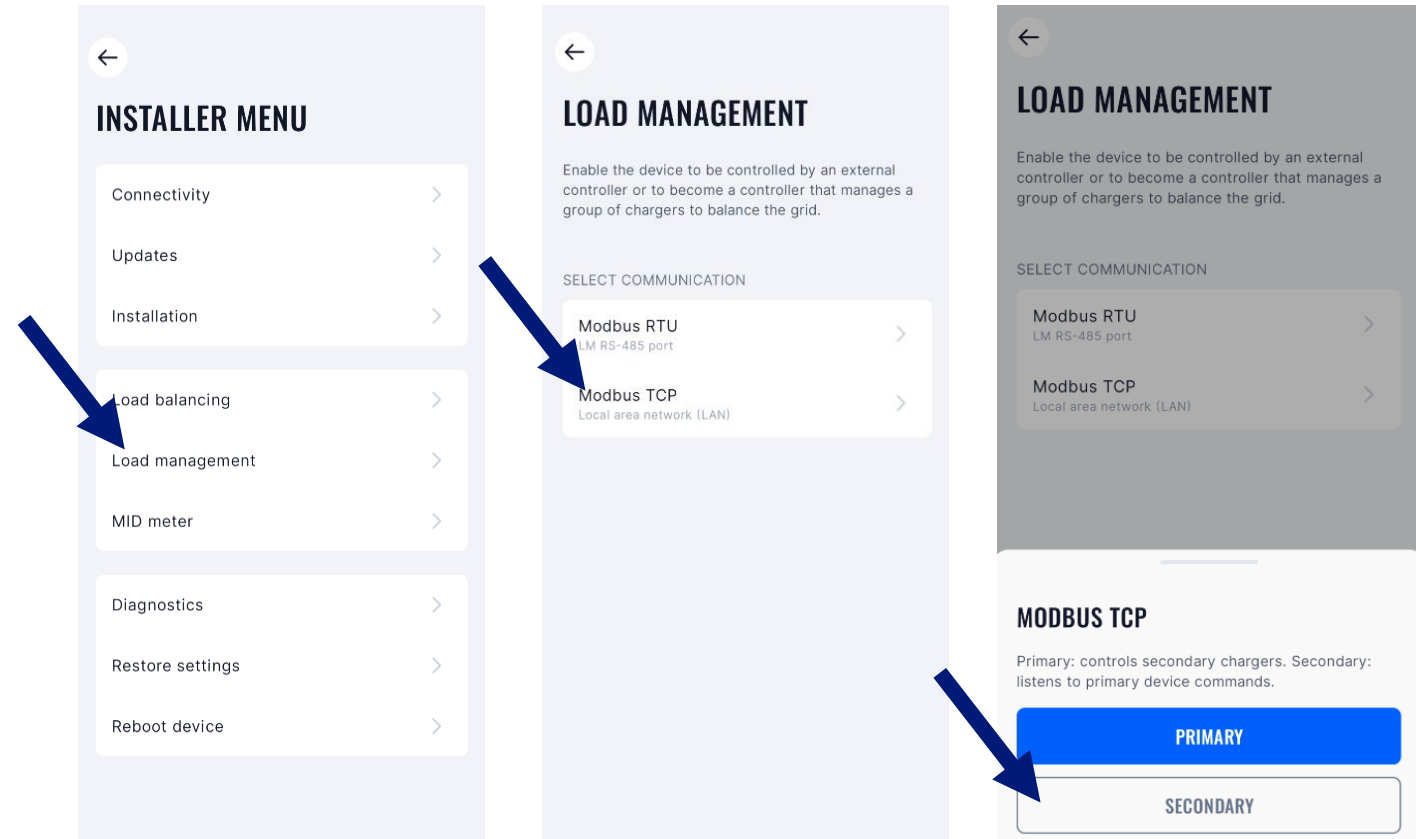
Check the connection status of secondary devices.

SECONDARY CHARGERS

IP address	192.168.1.100
Status	Connected
Last attempt: 2:24PM 19/01	
IP address	192.168.1.101
Status	Disconnected
Last attempt: 2:24PM 19/01	
IP address	192.168.1.102
Status	Waiting
Last attempt: 2:24PM 19/01	

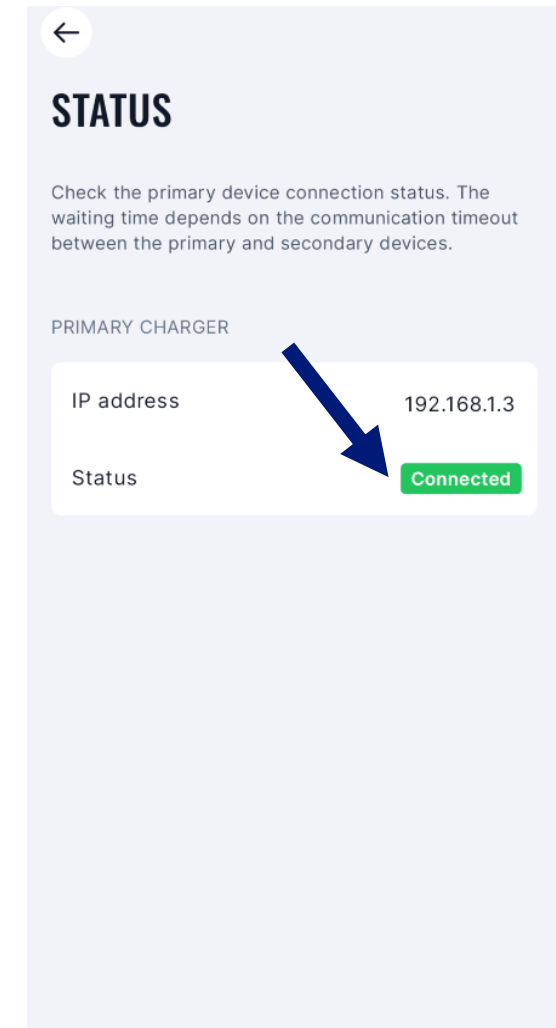
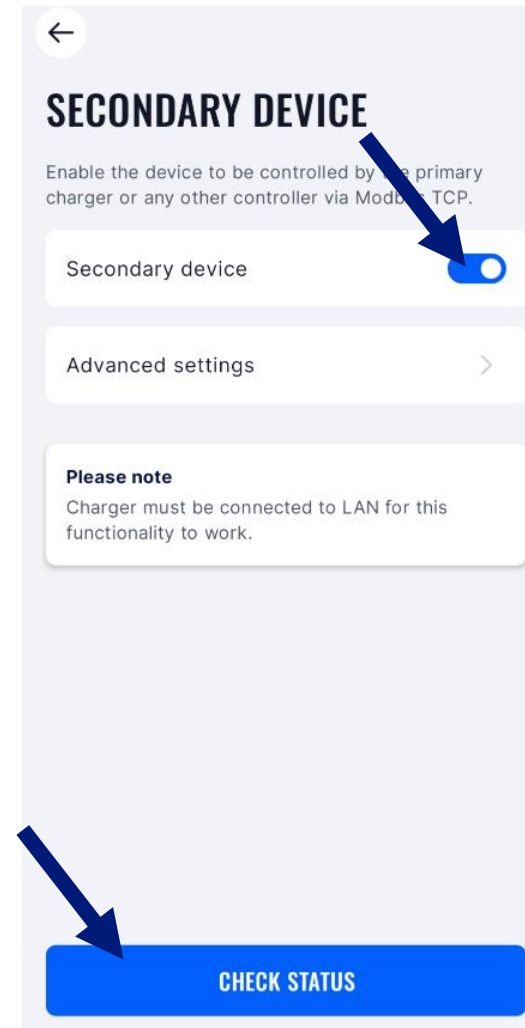
Dynamic Load Management using Modbus TCP/IP

- After setting the primary device, configuration must be done for every secondary device
- This setting designates the charger as the **secondary** charger



Dynamic Load Management using Modbus TCP/IP

- Enable device as secondary
- Check status to see if secondary device sees the primary

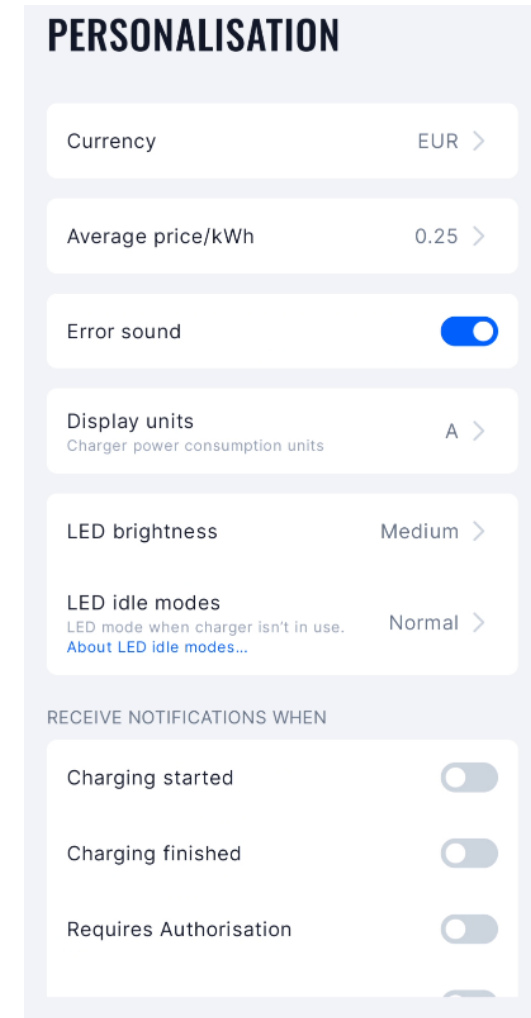


Application and additional features:

- [Personalisation](#)
- [Connectivity & OCPP](#)
- [Authorization via NFC](#)
- [Updating](#)
- [Charging sessions](#)
- [Schedule](#)
- [Diagnostics](#)
- [Troubleshooting](#)
- [Potential free contact](#)
- [Power selector switch](#)

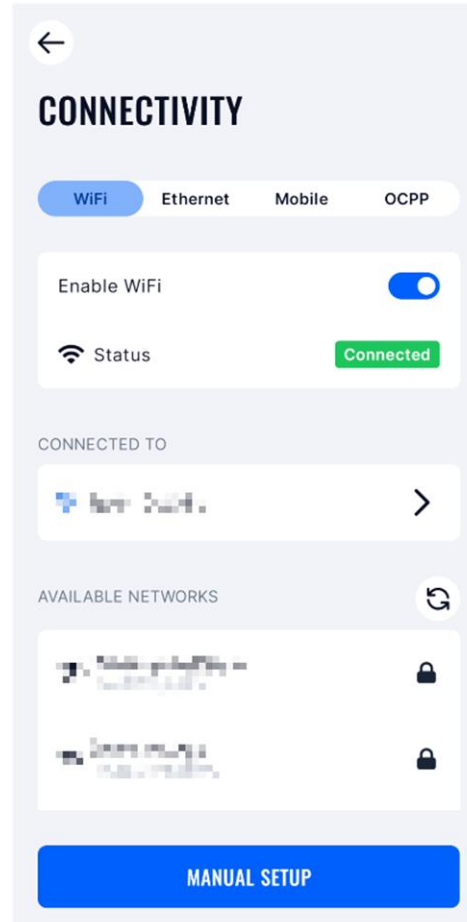
Personalisation

- App allows the user to personalise options to his own needs
- Personalisation includes setting **currency**, setting **average price**, silencing the **error sound**, managing **LED brightness** and setting whether to receive **notifications** about charger's state on the user's phone



Connectivity and OCPP

- App allows the user to choose between connectivity options like WiFi, Ethernet and Mobile



CONNECTIVITY

WiFi Ethernet Mobile OCPP

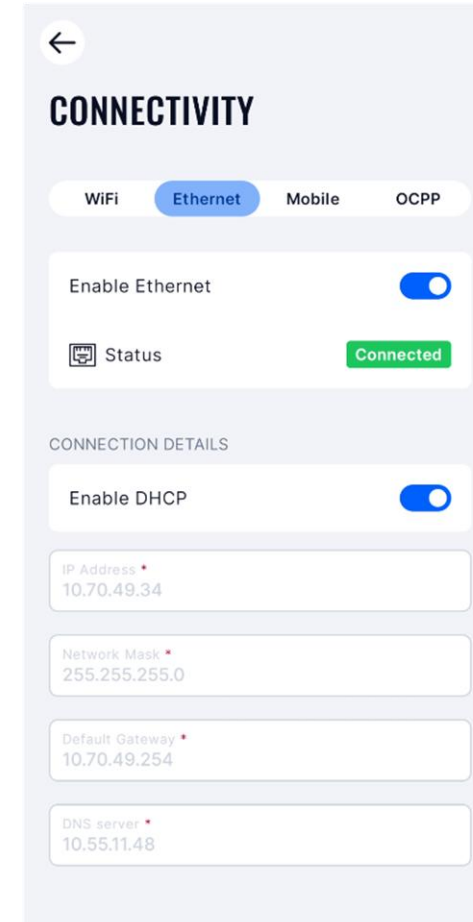
Enable WiFi

Status **Connected**

CONNECTED TO

AVAILABLE NETWORKS

MANUAL SETUP



CONNECTIVITY

WiFi Ethernet Mobile OCPP

Enable Ethernet

Status **Connected**

CONNECTION DETAILS

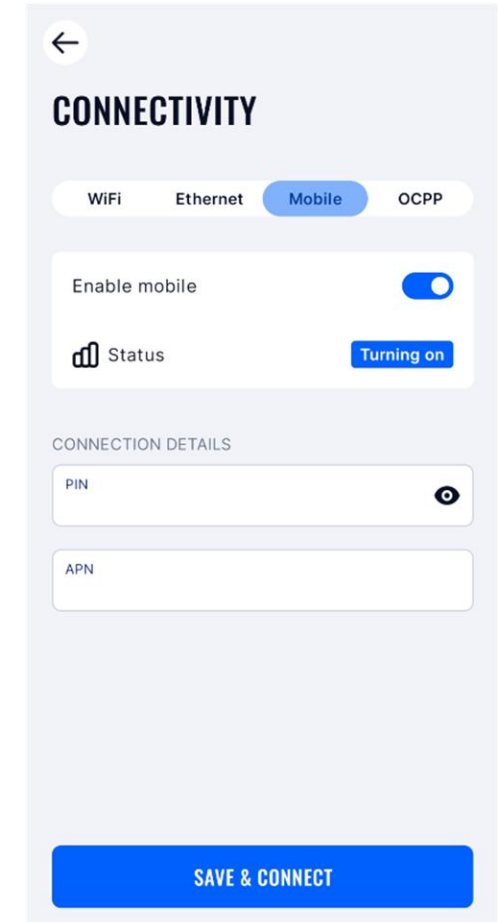
Enable DHCP

IP Address *
10.70.49.34

Network Mask *
255.255.255.0

Default Gateway *
10.70.49.254

DNS server *
10.55.11.48



CONNECTIVITY

WiFi Ethernet Mobile OCPP

Enable mobile

Status **Turning on**

CONNECTION DETAILS

PIN

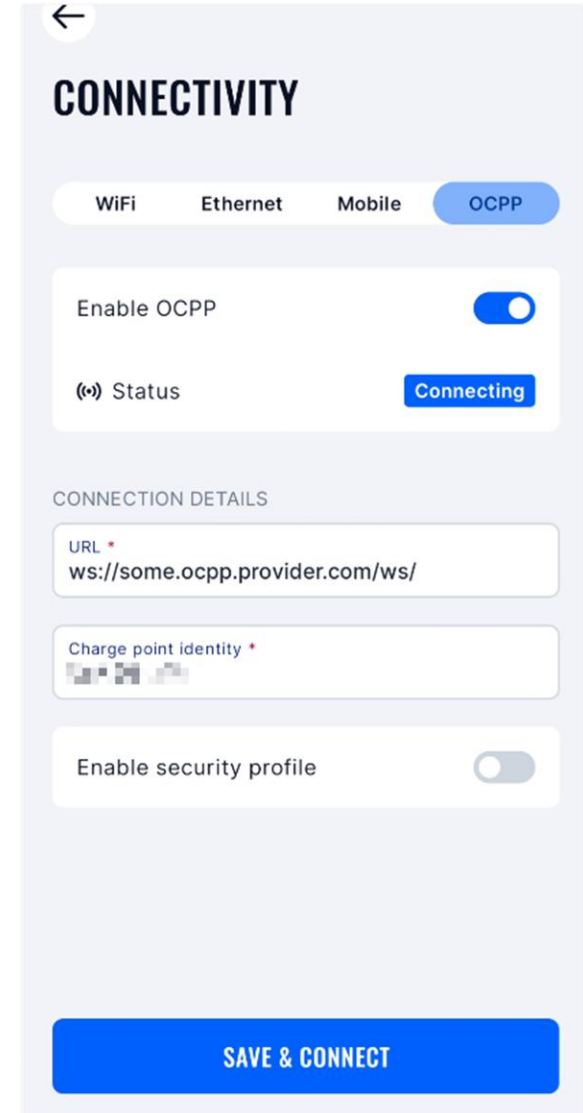
APN

SAVE & CONNECT

Connectivity and OCPP

- Connection to a 3rd party charge point management system is available through OCPP tab
- To connect – write down the given providers URL details. Note that address must end with a “/” symbol
- Charge point identity information is given by the provider or usually can be written down manually as chargers serial number

if required, application provides option to include Root and Client certificates



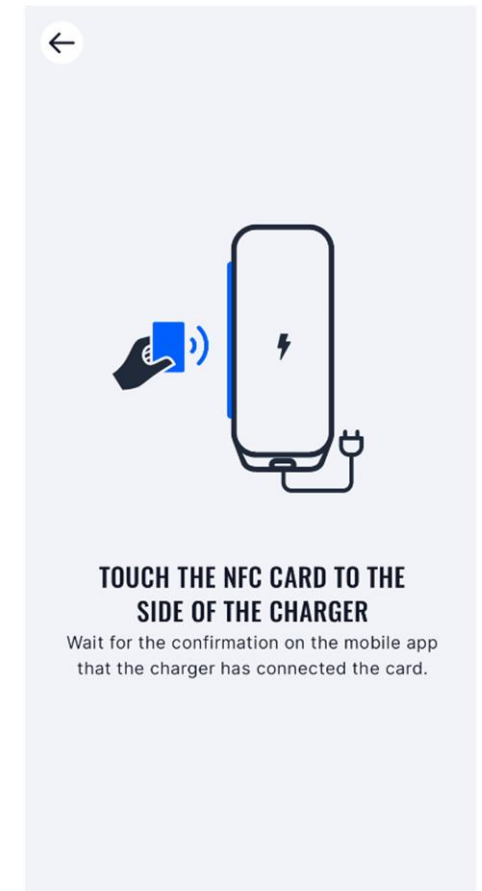
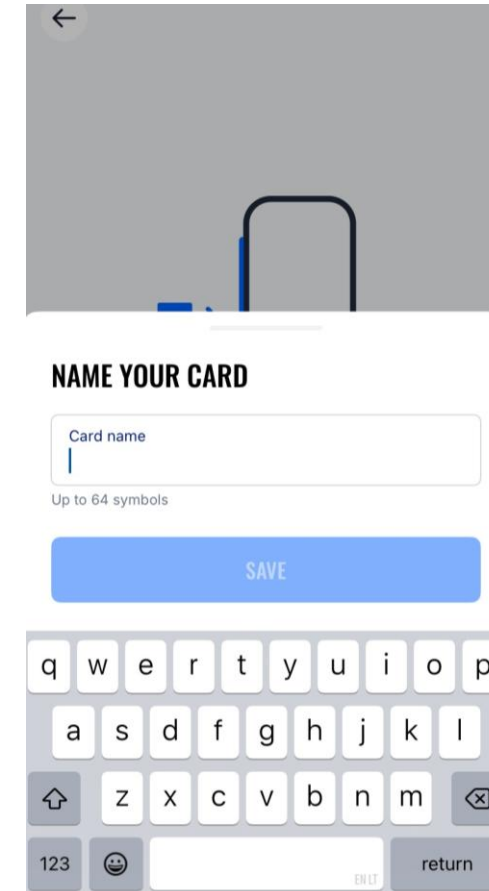
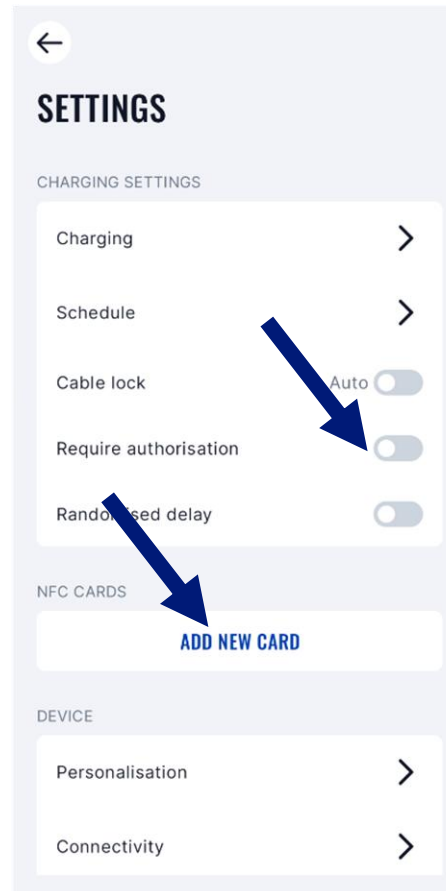
The screenshot shows a mobile application interface for configuring OCPP connectivity. At the top, there is a back arrow and the title "CONNECTIVITY". Below the title, there are four tabs: "WiFi", "Ethernet", "Mobile", and "OCPP", with "OCPP" being the active tab. The main content area includes a toggle switch for "Enable OCPP" which is turned on, and a status indicator showing "(📶) Status" with a blue "Connecting" button. Below this, there is a section titled "CONNECTION DETAILS" containing three input fields: "URL" with the value "ws://some.ocpp.provider.com/ws/", "Charge point identity" with a blurred value, and "Enable security profile" which is turned off. At the bottom of the screen is a large blue button labeled "SAVE & CONNECT".

Authorization via NFC

- To enable NFC cards press on **Require authorisation** tab
- Press add new card
- Give it a name and touch the card to the charger's side to identify it

NFC card specifications that work with our charger

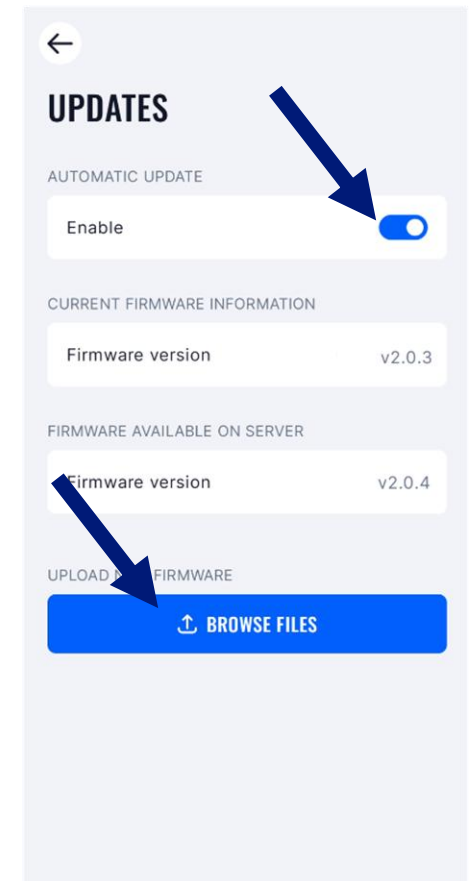
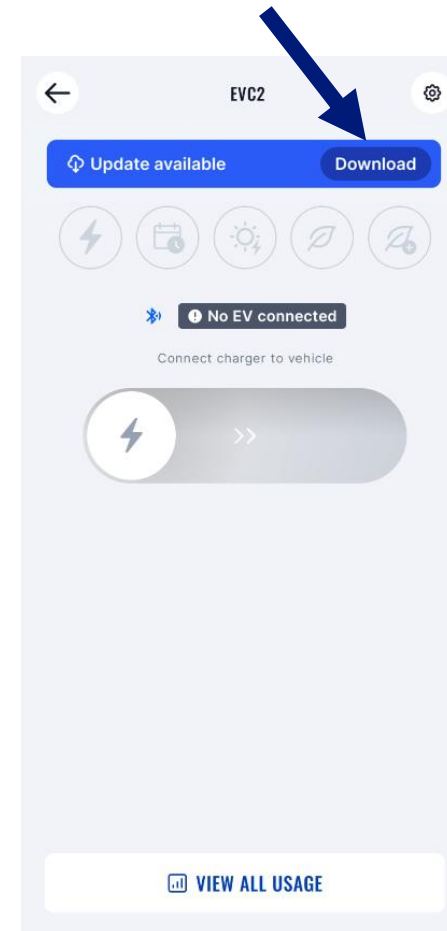
- ISO 14443 A
- UID max size 10 bytes
- 13.56MHz



Updating

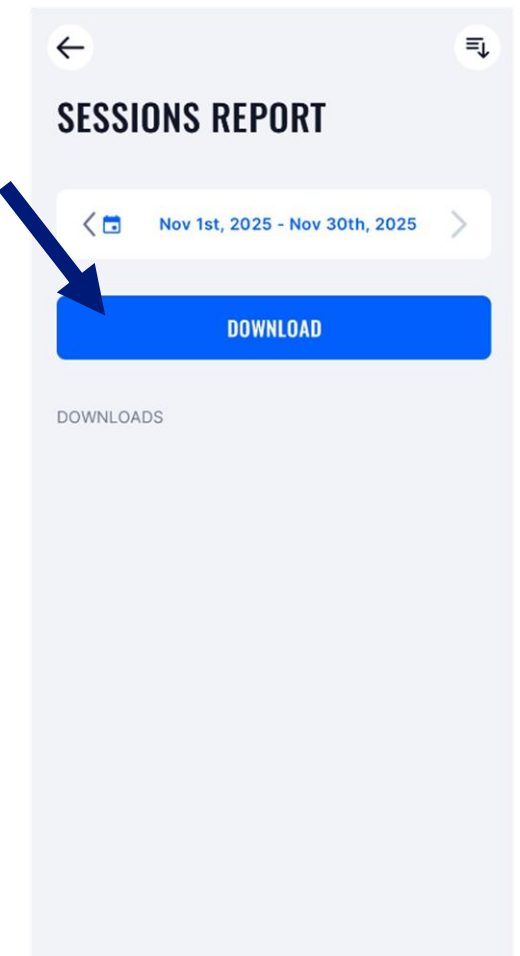
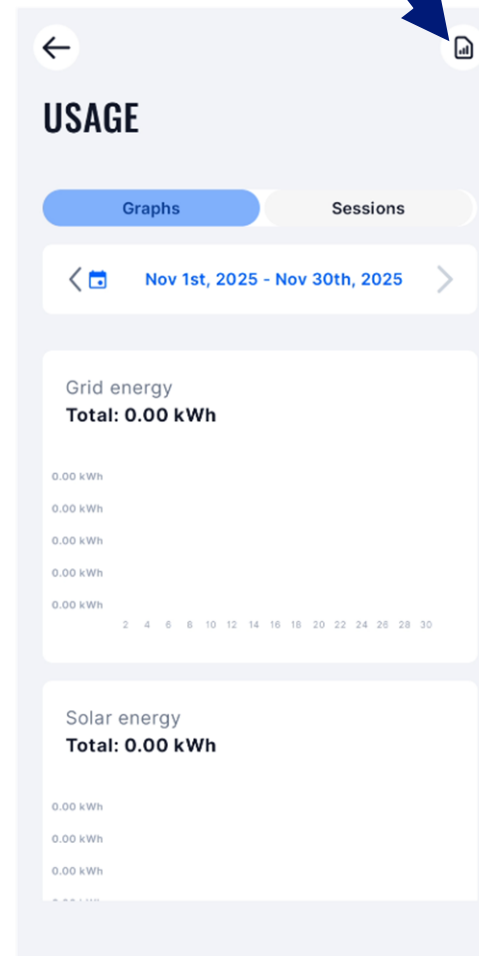
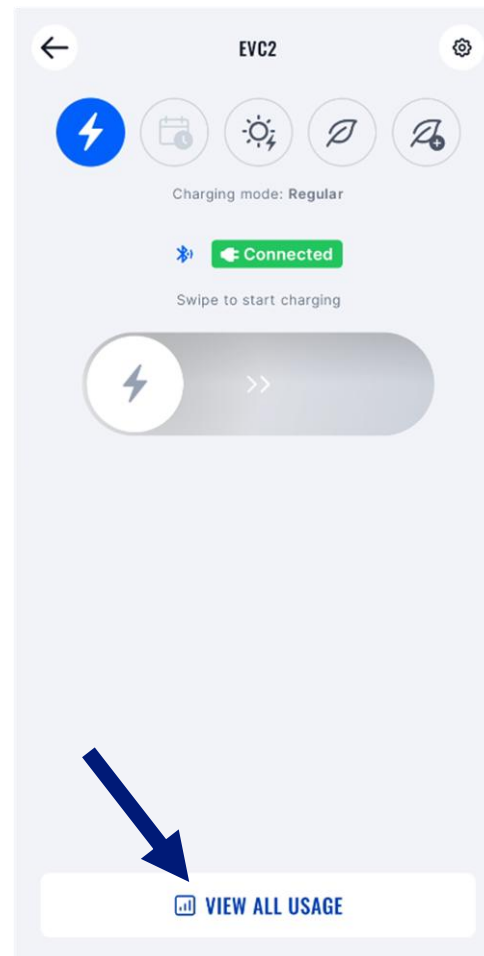
- Update can be done automatically through our server or manually downloaded from our wiki page to the phone and added as a file

it's also possible to turn off automatic updates



Session and usage

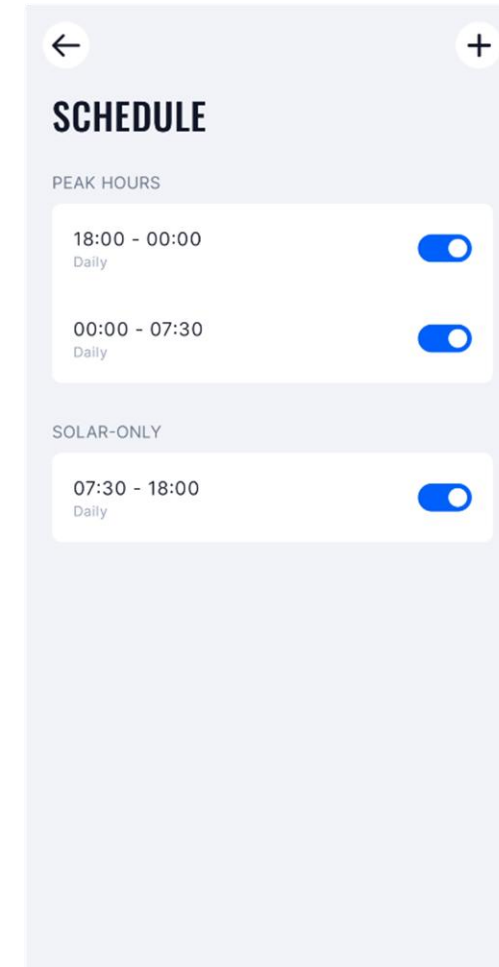
- All charging sessions are recorded in the charger's memory and can be viewed or downloaded as an excel file



Scheduler

- It's possible to create multiple schedules for the charger
- In this example the schedule is created to charge in solar only mode in daytime, while limiting charging during evening and nighttime

07:30 to 18:00 charging on solar only
18:00-07:30 don't charge at all



Scheduler

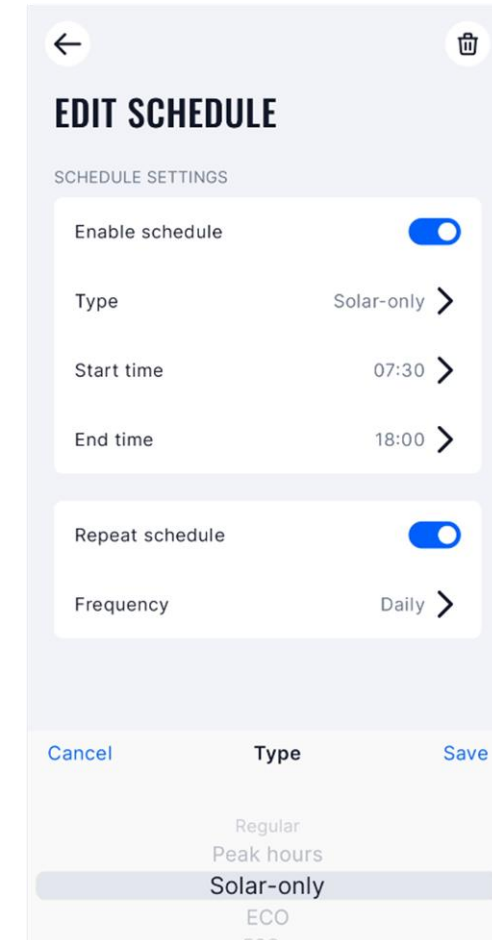
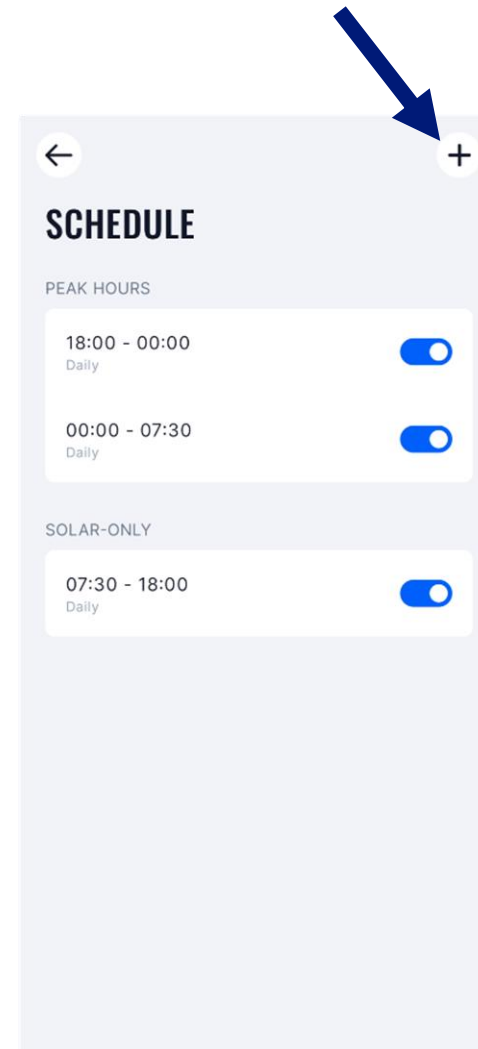
- To create your own schedule, press the “+” button
- If Solar charging functionality is disabled users will only be able to create 2 types of schedules:

1. For the time periods when the car should not be charged, select the ‘Peak hours’ section.

2. For time periods when the car should be charged, select the ‘Regular’ section

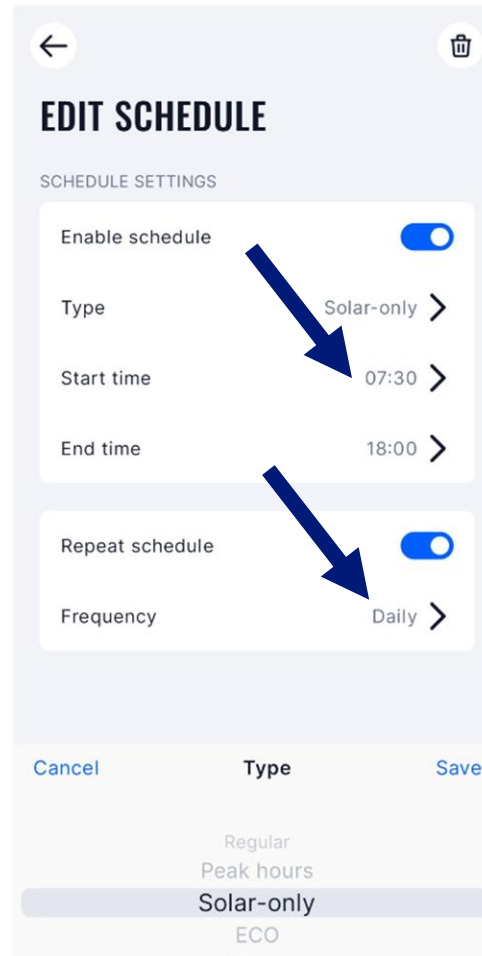
3. If Solar charging functionality is enabled users will only be able to create 3 additional modes

- Solar-only
- ECO+
- ECO



Scheduler

- To set charging schedules, choose the desired hours and minutes on the provided clock.
- In order to plan on which days schedule should be active, select weekdays from the list



EDIT SCHEDULE

SCHEDULE SETTINGS

Enable schedule

Type Solar-only >

Start time 07:30 >

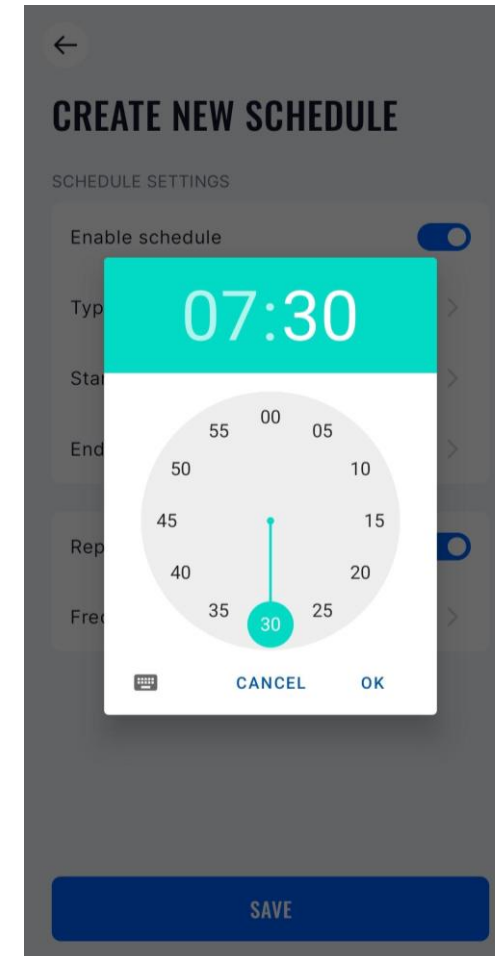
End time 18:00 >

Repeat schedule

Frequency Daily >

Cancel Type Save

Regular
Peak hours
Solar-only
ECO
ECO



CREATE NEW SCHEDULE

SCHEDULE SETTINGS

Enable schedule

Type >

Start time 07:30 >

End time >

Repeat >

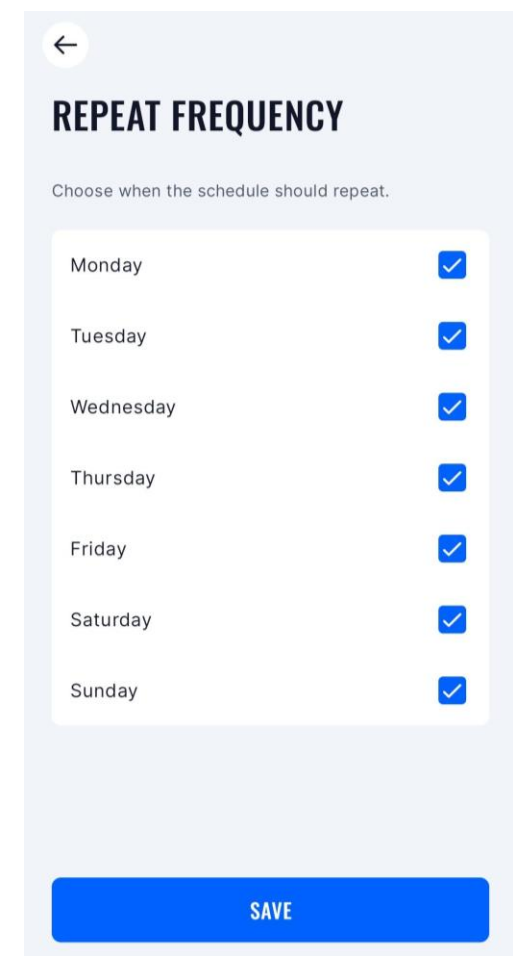
Frequency >

07:30

55 00 05
50 10
45 15
40 20
35 25 30

CANCEL OK

SAVE



REPEAT FREQUENCY

Choose when the schedule should repeat.

Monday

Tuesday

Wednesday

Thursday

Friday

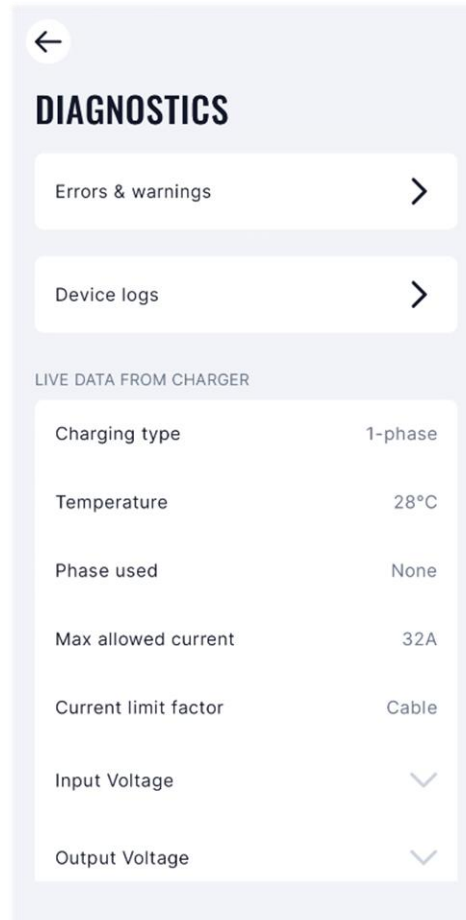
Saturday

Sunday

SAVE

Diagnostics

- Users can check their charging statistics
- If a meter is connected, it also shows how much current is being drawn already
- If solar is enabled – export to grid is also seen in the tab



←

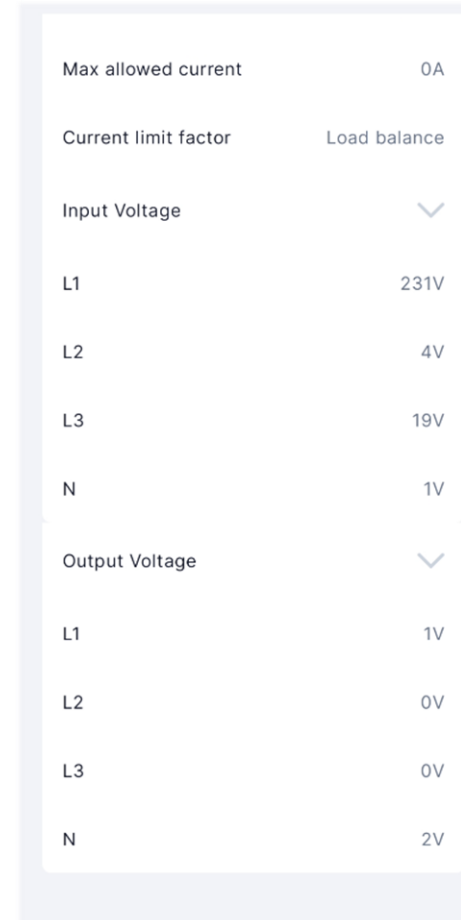
DIAGNOSTICS

Errors & warnings >

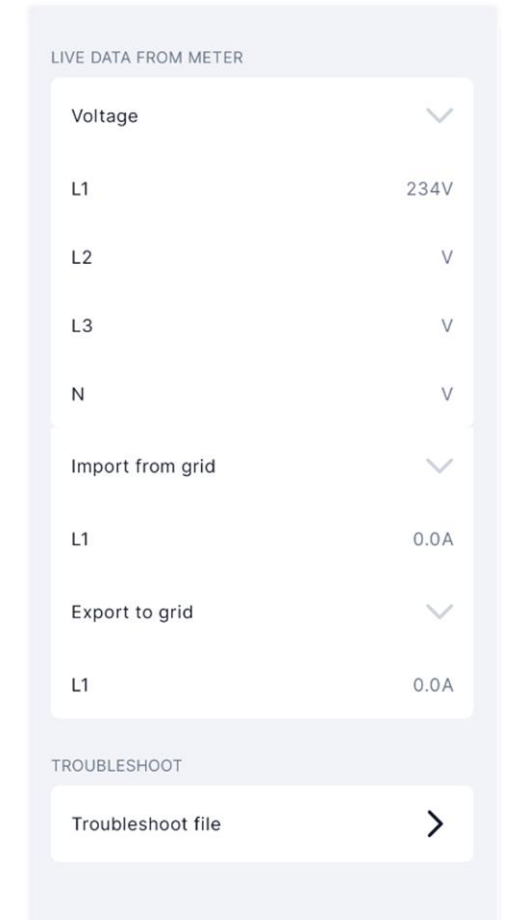
Device logs >

LIVE DATA FROM CHARGER

Charging type	1-phase
Temperature	28°C
Phase used	None
Max allowed current	32A
Current limit factor	Cable
Input Voltage	>
Output Voltage	>



Max allowed current	0A
Current limit factor	Load balance
Input Voltage	>
L1	231V
L2	4V
L3	19V
N	1V
Output Voltage	>
L1	1V
L2	0V
L3	0V
N	2V



LIVE DATA FROM METER

Voltage >

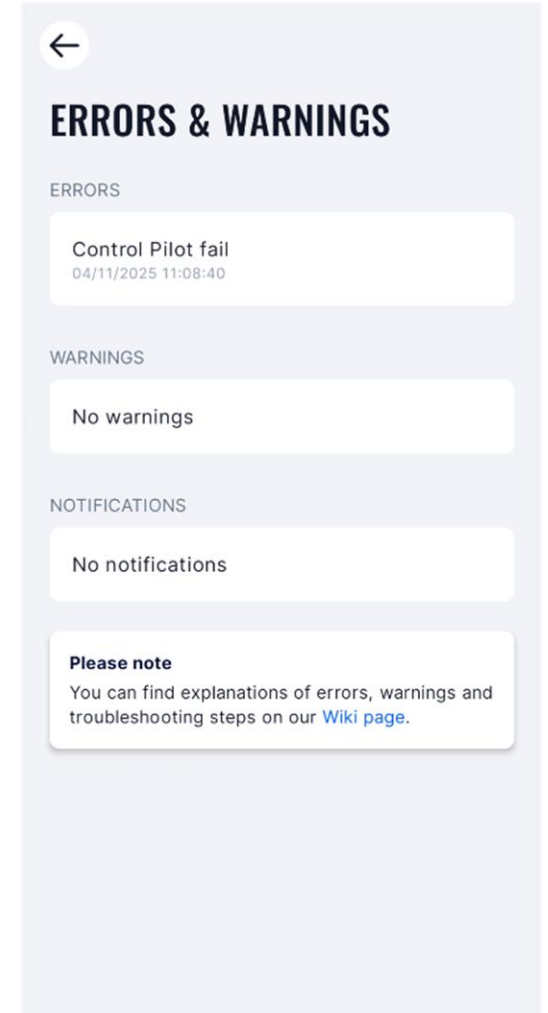
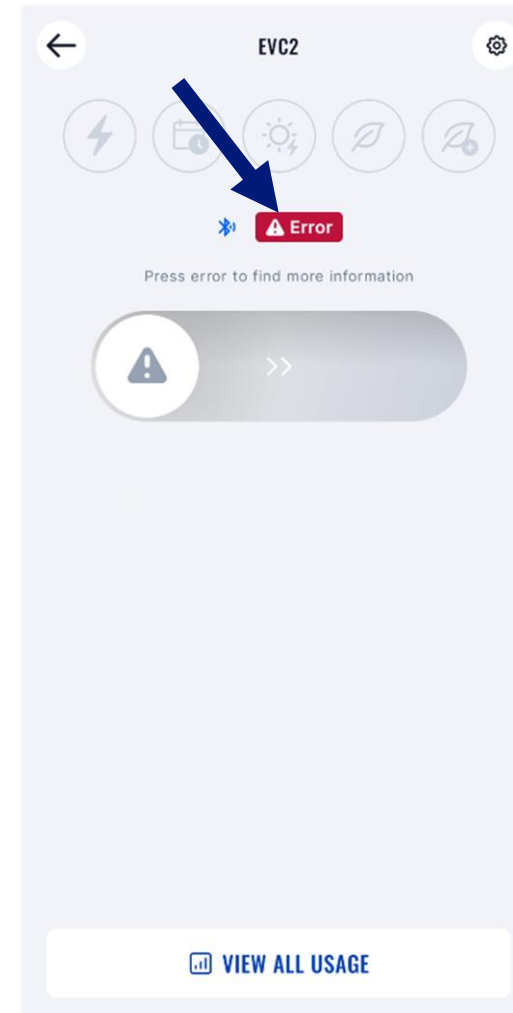
L1	234V
L2	V
L3	V
N	V
Import from grid	>
L1	0.0A
Export to grid	>
L1	0.0A

TROUBLESHOOT

Troubleshoot file >

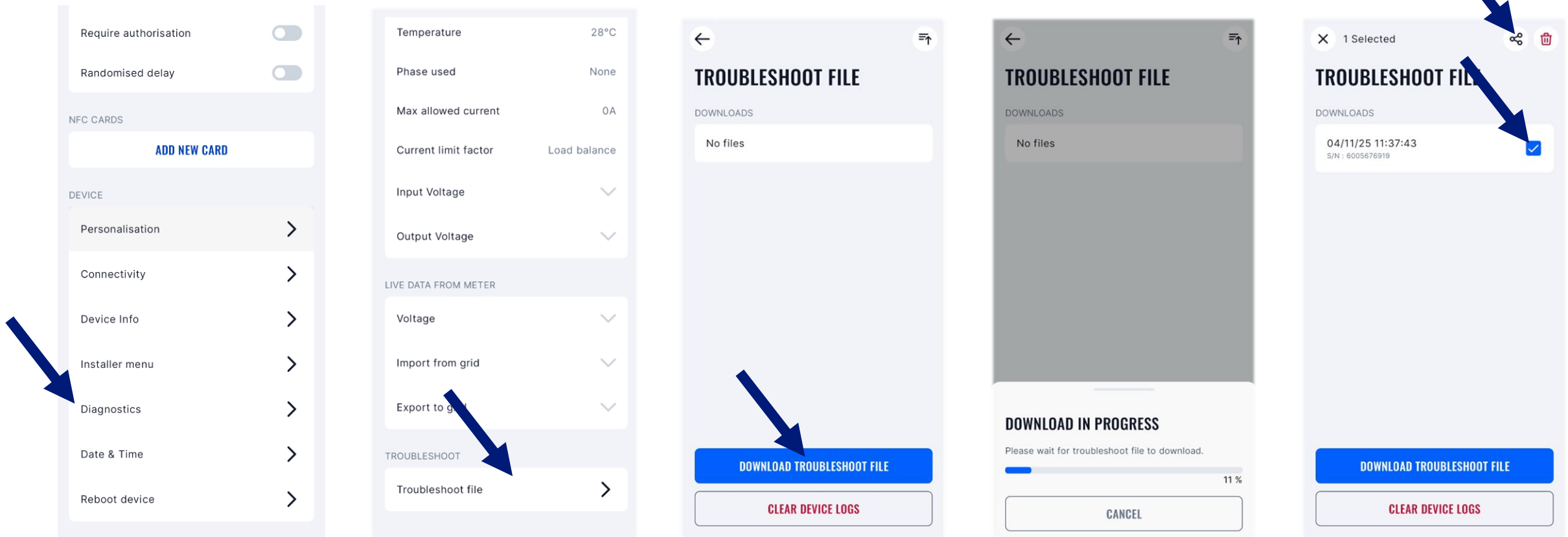
Diagnostics

- Upon receiving a warning or an error user can check for himself or navigate to download a log file for further analysis



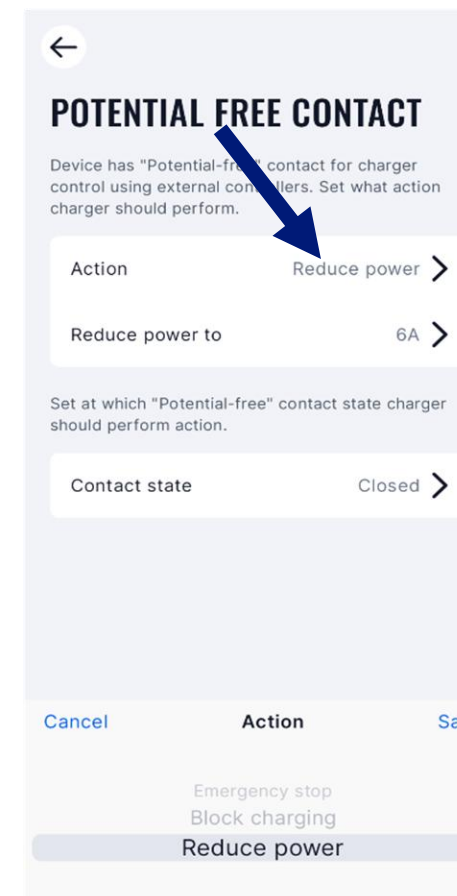
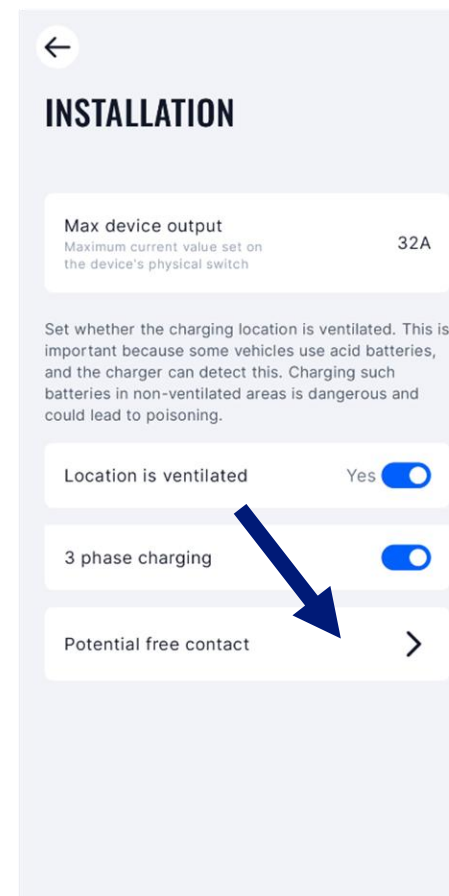
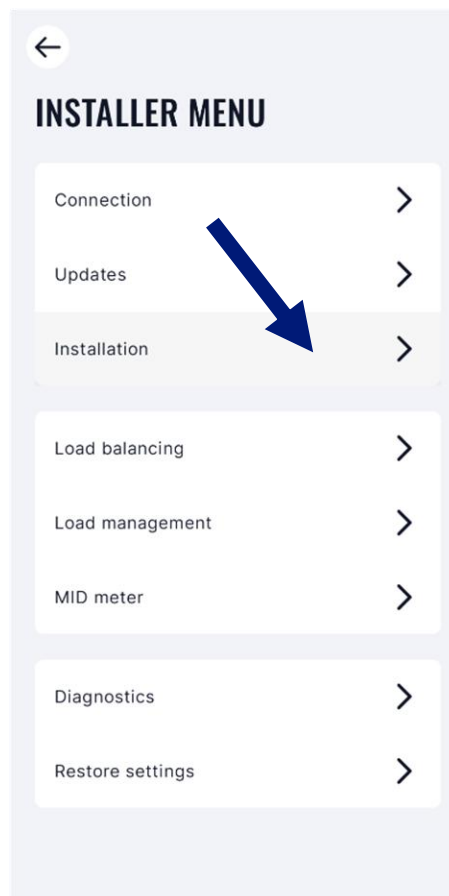
Troubleshooting

- Troubleshoot file is critical for an engineer to understand the issue better

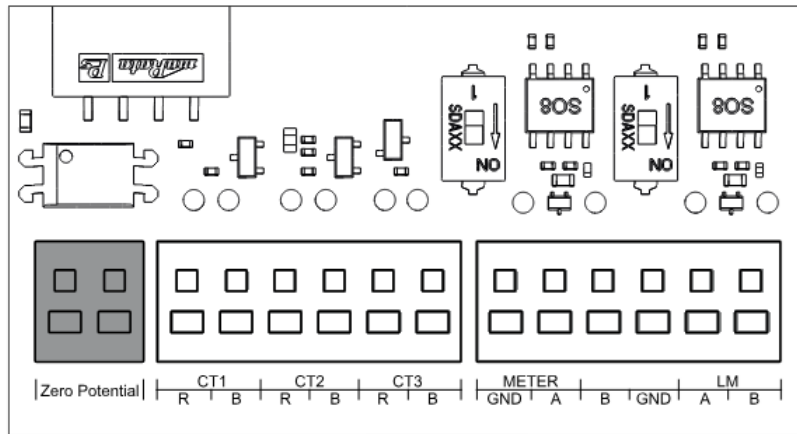


Potential free contact

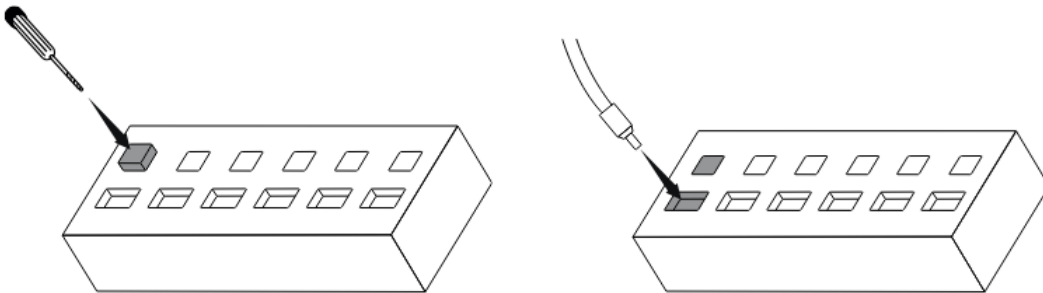
- Potential free contact allows to control the charger via a special relay
- Depending on its state (open/closed) the charger can behave differently
- The relay can be controlled by a signal wire



Potential free contact



- Option 1: Emergency stop
- Option 2: Block or allow charging
- Option 3: Reduce charging rate



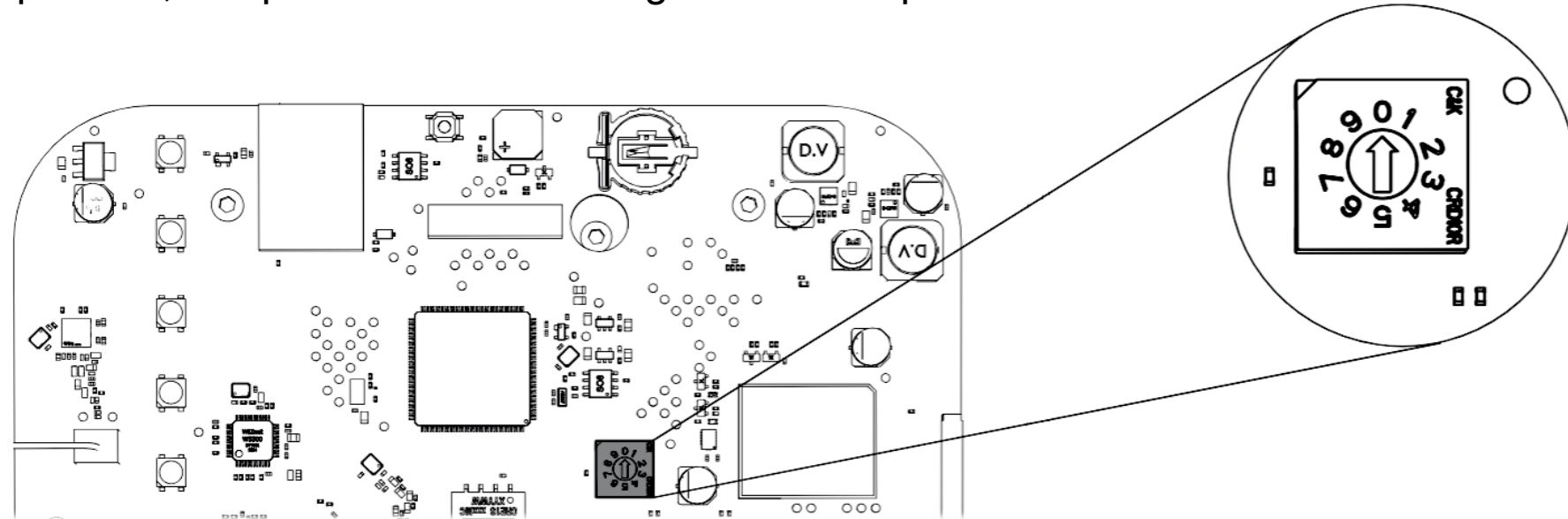
To insert the wire, keep the lock button pressed with a screwdriver


Power selector switch

- This switch can be found on the interface board. It could be turned to limit **Maximum device output**.
- By changing the rotary switch position, it is possible to limit charger's max output to the car without using the app



Screwdriver
(flat head)



	0	1	2	3	4	5	6	7
Current, A	32	6	10	13	16	20	25	28

Accessories

- We offer single, double and quad mounting poles

Double mounting pole is a slim and elegant mounting pole for two EV chargers. Great for side-by-side parking configurations in houses, apartment complexes, company parking. Allows to fully hide wiring when entry from back of charger is used

Quad mounting pole is large and sturdy and is made for industrial application. Has an internal IP 55 rated 36 module size electrical mounting panel with din rail for mounting all electronic components such as smart meters or protective devices internally



Accessories

- For load balancing we also offer Shelly for metering over network, Eastron meters and CT clamps as physical wired and Modbus

