

User and installation manual

Charge-Amps AB

Product AURA – Charging station

Gustav III:s Boulevard 42, 8th floor

S-169 73 Solna

Sweden

The manual is a document that may be updated in the future without notice. Charge-Amps AB cannot guarantee that all information in the manual is correct and updated. Charge-Amps AB are therefore not guilty for mistakes, accidents, damages or incidents that can lead back to the usage of this User and Installation manual.

© Copyright Charge-Amps AB 2018. All rights are limited. Copying, adjusting or translating are strictly forbidden without the consent from Charge-Amps AB. The consent must be in written form with exception from copyright laws.



Content

- User and installation manual.....1
- Using Aura.....3
 - Introduction.....3
 - Product content.....3
 - Model view Aura.....3
 - How to use Aura.....4
 - Product support and service for Aura.....4
 - Warranty conditions4
- Installation manual5
 - Safety precaution.....5
 - Requirements for installation5
 - Installation6
 - Operations.....10
 - Product data.....13
 - Maintenance of Aura.....14
 - Product recycling.....14

Using Aura

Introduction

Congratulations, you have just taken a big leap towards a more sustainable environment with your purchase of Aura!

Aura is a product developed for public charging. With two charging sockets (2x22 kW), Aura is a perfect fit for all kinds of charging places from parking slots, to office spaces and homes.

Aura is equipped with powerful hardware, appealing design and smart features. With my.charge.space (Charge Amps cloud service), a world of possibilities regarding control and statistics are available.

Product content

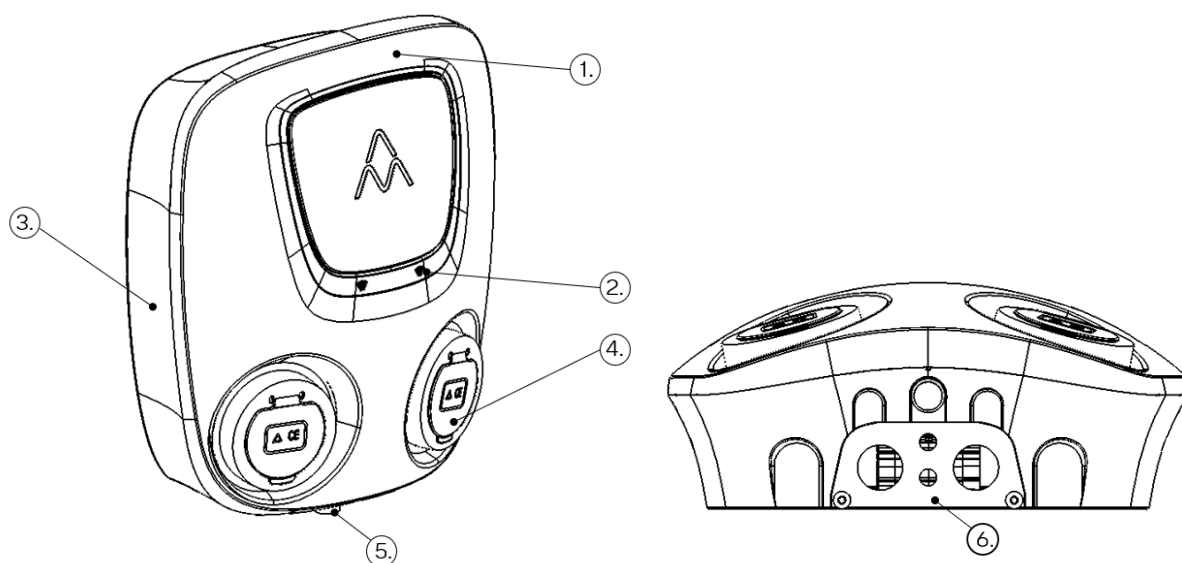
In the package, the following is included:

- Aura
- User and installation manual
- Configuration manual
- Slider hatch, cable glands, cable plugs and screws
 - Cable gland for installation cables: 13-17.5 mm and 17-25 mm
 - Cable gland for data: 4-8 mm
- Two set of keys to the cylinder lock

The following should be provided by the installer:

- Four pieces of mounting screws for installing. The installer chooses an appropriate screw according to the material of the wall.
- Four pieces of sealings for previous mentioned screw.

Model view Aura



1. Aluminum front: Open when installing.
2. Plastic lid: Symbols for RFID identification.
3. Aluminum back: Mounts on wall. Hardware is already mounted in the back.
4. Charging sockets: Two charging sockets equipped with LED rings showing charging status.
5. Cylinder lock: Unlock and lock during installation.
6. Slider hatch: Data and power cable in/out. Delivered with cable glands and screw plugs for the holes that will not be used.

How to use Aura

Aura is designed to ensure a correct and easy way to charge your electric vehicle.

Park within length of the charging cable between your vehicle and Aura and connect the cable to one of the charging sockets. The charging sockets are equipped with a lid that needs to be flipped open for a cable to connect. When charging starts, the LED ring on the socket shows a blue light.

Aura is equipped with RFID identification for an easy user identification. To be able to charge your vehicle with the RFID identification use the tag (Type A 13.56 MHz). The user scenario is as follows:

1. Lock the RFID tag in the cloud service.
2. Flip open the lid on the charging socket and connect the cable to Aura.
3. The LED rings acts as following:
 - Green: Available socket.
 - Yellow: Waiting or finished charging.
 - Blue: Charging ongoing.
 - Pulsating blue: Waiting for available current from load balancing.
 - Red: Error.
4. Approach the RFID tag towards one of the RFID symbols on Aura.
5. RFID symbols acts as following:
 - Blinking blue: Awaiting RFID tag.
 - Yellow: Verifying tag, please wait.
 - Green: RFID tag approved, charging may start.
 - Red: RFID tag not approved.

Product support and service for Aura

Charge Amps offers support for all products. If you have any questions or problems, do as follows:

1. Search the User and installation manual to find information regarding your question.
2. Visit the support page (<https://charge-amps.com/support/>) and look through the FAQ.
3. If you still have not found an answer, you can mail our support:
support@charge-amps.com

If service is required, contact the re-seller that you have purchased your product from.

Warranty conditions

Check the warranty conditions on our website: charge-amps.com/warranty-policy/

Installation manual

This part of the manual describes how to install Aura. To see the model view, go back to Model view Aura.

Safety precaution

To be able to install and mount Aura, you must be a licensed electrician and follow all safety precautions to ensure a safe and correct installation. Installation should follow according to instructions in this document.

Requirements for installation

Tools

- Screwdriver
- Drill
- Multi meter
- Spirit level for correct installation on wall
- Computer/cell phone
- Cable stripper

Cable

Before starting the installation, check the following:

- That incoming cables are of correct dimension (<25mm in diameter).
- That power is shut off.

Connection

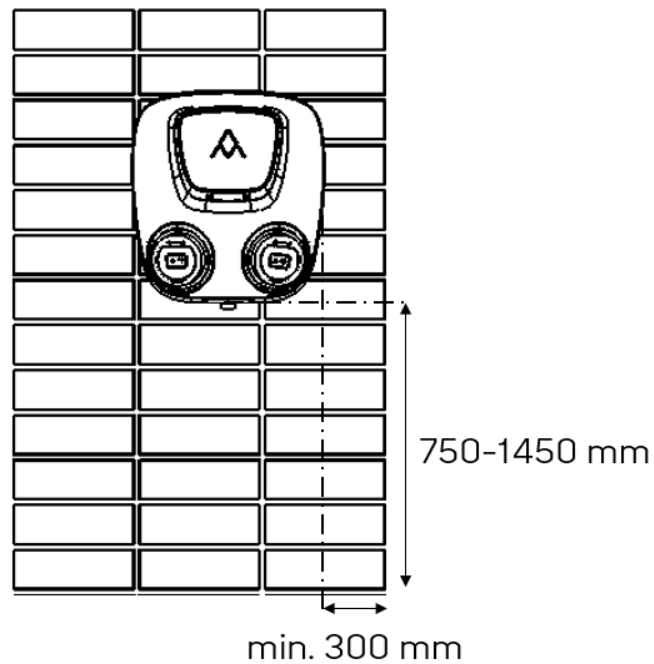
To be able to utilize the full potential of Aura, an internet connection is required. Check the following connection options:

- Wireless: WI-FI access point with good service.
- Ethernet cable: Available CAT5-cable or better.

Site for installing Aura

When mounting Aura, check the following:

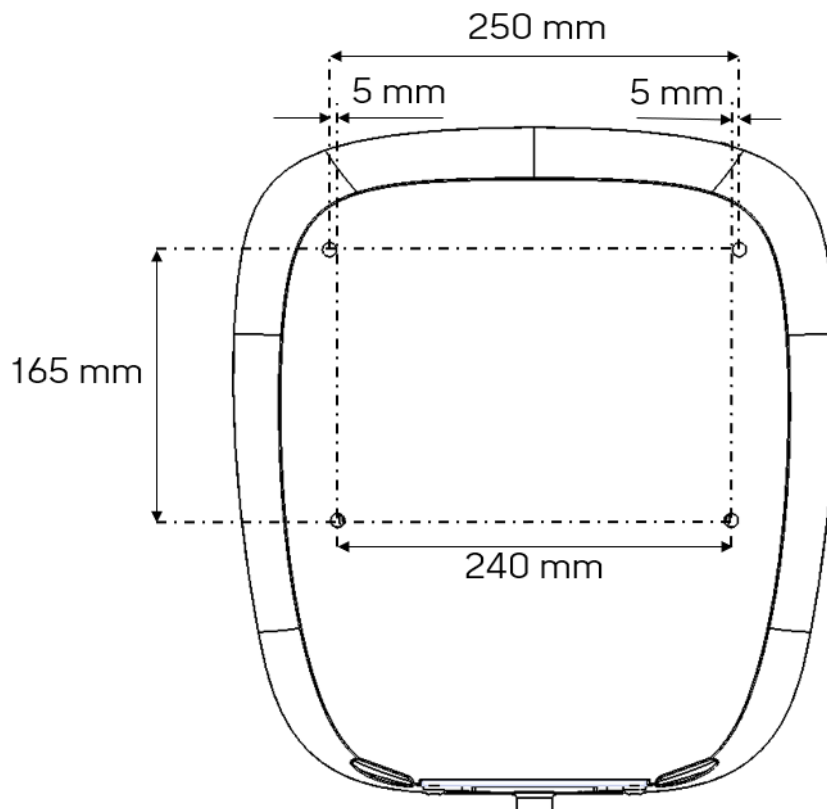
- Verify that the wall is suitable for mounting. The wall should be able to withstand a weight of 10kg and the pull force from connected charging cables.
- Verify that suitable screws are used with regard to the wall material.
- Avoid installing on a place where there is direct sunlight.
- Aura must be installed in an upright position, according to picture below.



Installation

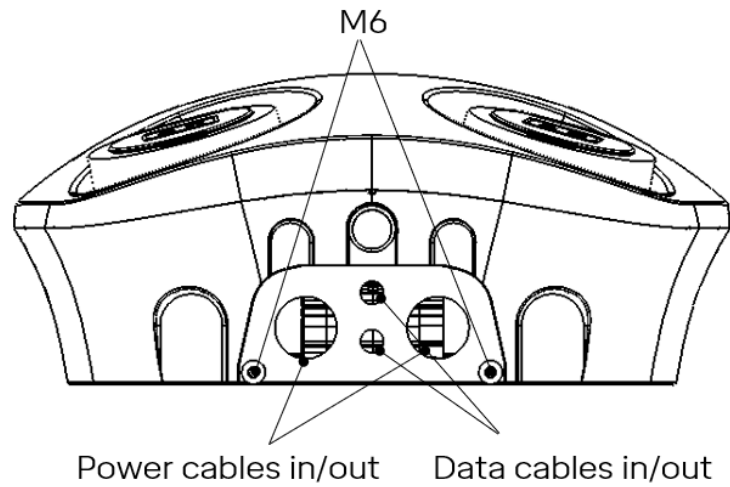
Follow these steps for a correct installation:

1. Unpack Aura.
2. Drill holes in wall according to dimensions below. Use laser or spirit level.

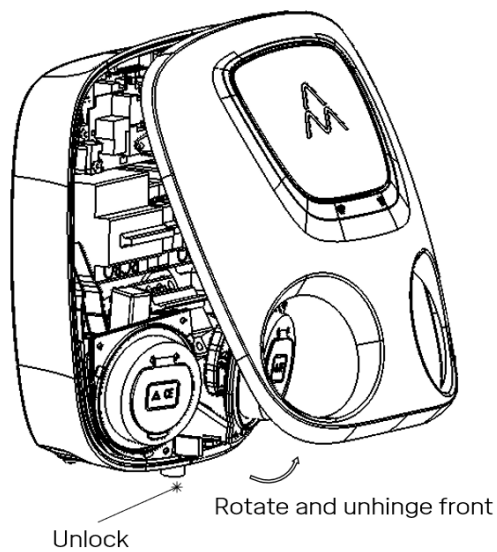


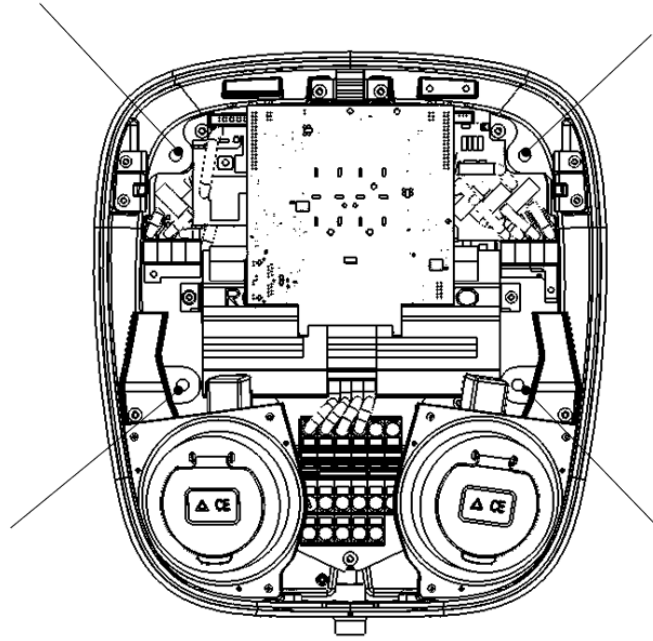
3. Interface for data and power: The Power- and data cables are threaded through the slider hatch and then into the lower part of Aura. In the kit, there are cable glands for the holes that are used and screw plugs for those not used. The slider hatch is fixed with the M6 screws in kit. The holes for power

cables are fitted to M32 and for data M12. The slider hatch is adjusted with the glands and plugs before it is mounted on Aura.

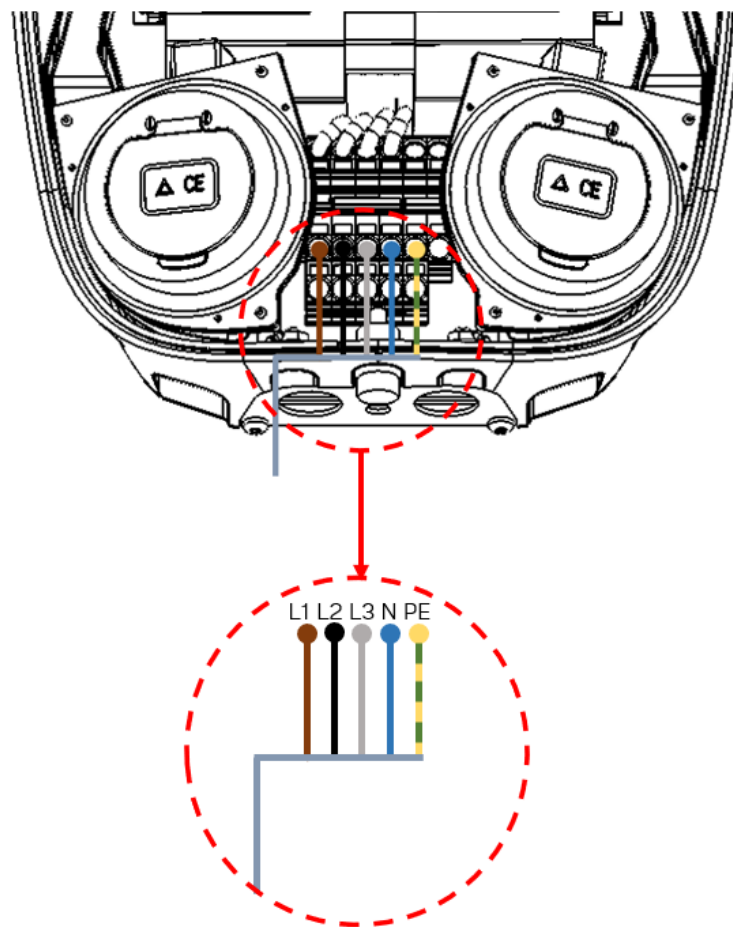


4. Mount Aura on the wall. Use the key to unlock Aura. Rotate the front and unhinge it. Avoid scratching the front when placing it down. Fit Aura on the wall according to the drilled holes. Ensure that the mounting is fixing the Aura firmly.

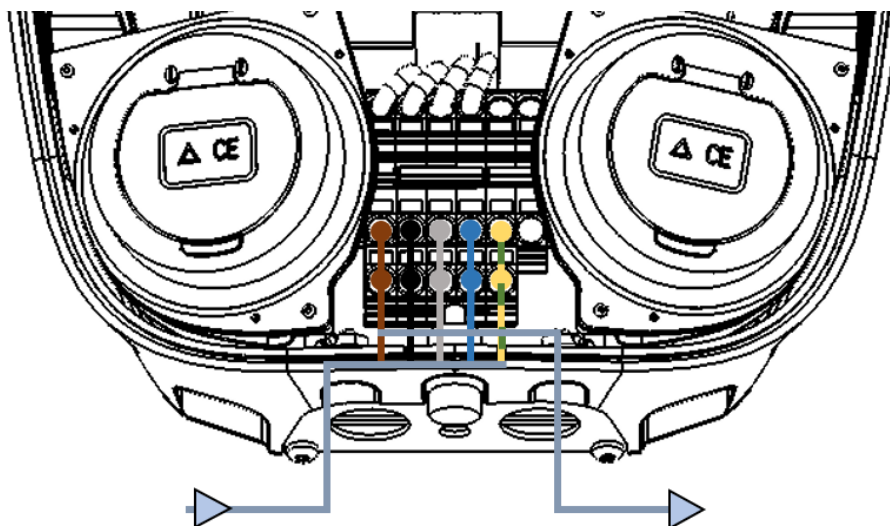




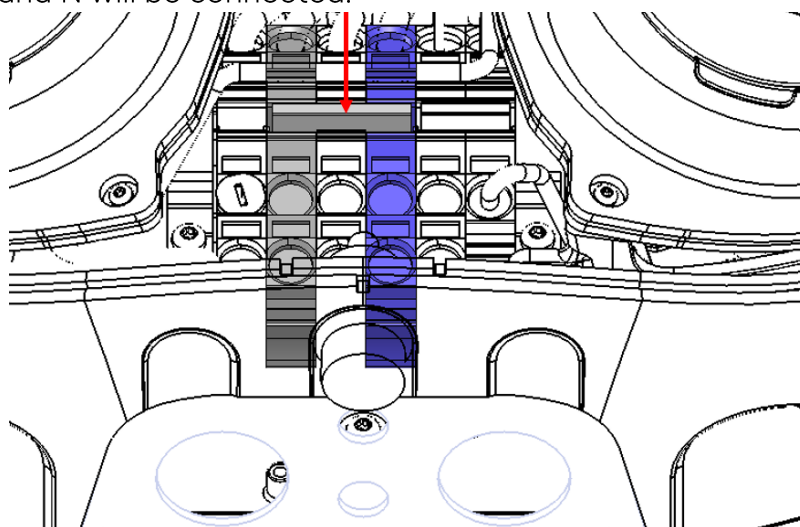
5. Connecting the power cables: Pull the power cables through the slider hatch, approx. 80mm. Strip the cables approximately 20mm. Connect the cables (L1-L3, N & PE) to the WAGO terminals as the picture shows.



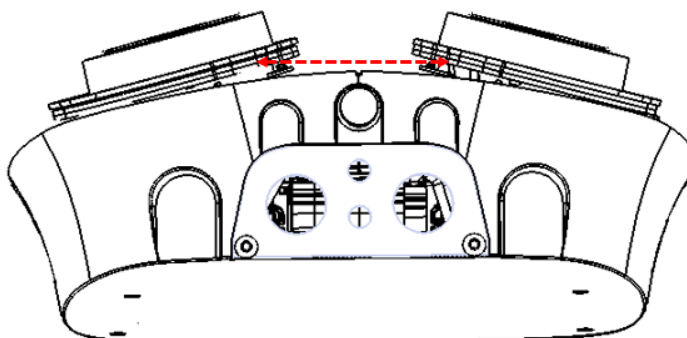
If the installation cables are to be wired to another Aura, use the other insert on the terminals.



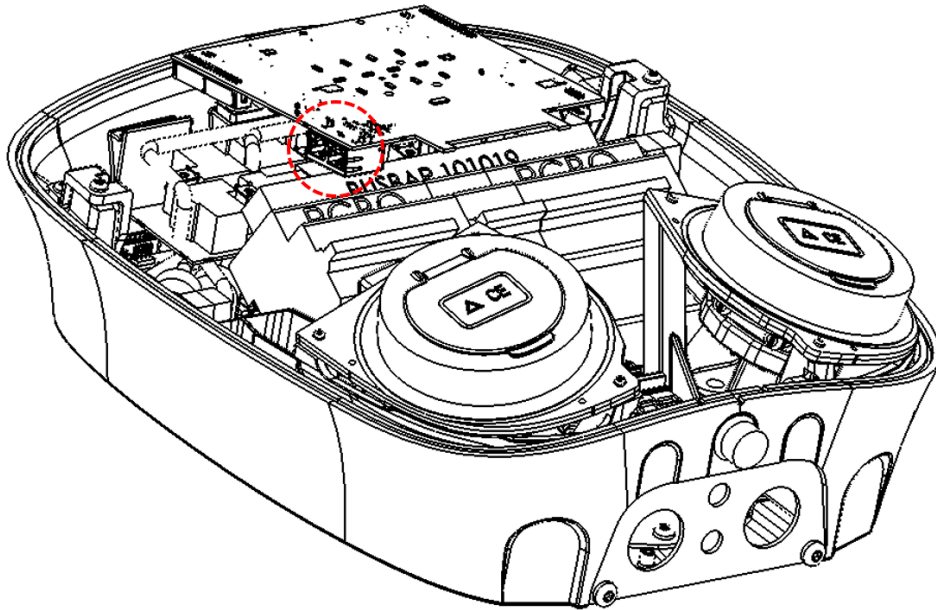
If you are installing Aura on an IT-net. Install the phase cables L1-L3 and install the 1-3 jumper bar, that is included in the kit, according to picture below. L2 and N will be connected.



When the cables are installed and bended into the WAGO terminals, they must not exceed the red dotted line on picture below.



6. If you are going to use ethernet cable, plug it in the RJ45 port on main card as picture shows.



7. After connecting the cables, make sure that the RCBOs and MCB are switched on and then rotate back the front and lock the station.
8. Testing Aura: With the Aura closed, turn the power back on. At startup Aura will light up the logo and perform self tests. If it is connected to the internet, it will download the available firmware updates. When the startup is complete, Aura will play a sound. You can then test that Aura charges your vehicle as expected.

Operations

After Aura has been correctly installed it is time for configuration. The aim with the configuration is to connect the unit to the Charge Amps cloud service.

How to register and operate Aura:

1. Go in to: <https://my.charge.space>
2. Click "Sign Up" link above "login form"
3. Fill in all information and press "GO".
4. You will receive an e-mail with a verification link within a couple of minutes.
5. Click the link and log in.
6. Fill in the serial number and PIN code. See configuration manual.
7. Press "GO" and then you are done.

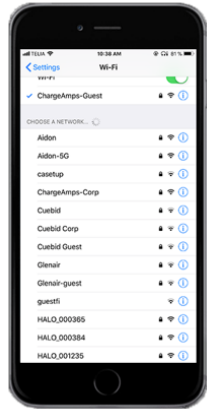
How to configure Aura to a wireless connection (WI-FI):

1. Turn on your Aura
2. Use a smart phone, open "wireless settings" and scan for wireless networks.



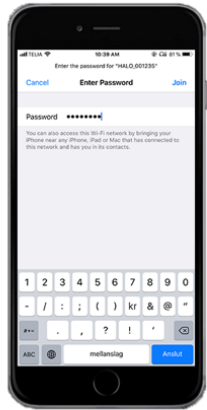
Enter settings > Wi-Fi

3. Find network AURA_*****, where ***** are the last six digits in the serial number.



Choose the network Aura_***** (last digits in serial number)

4. When network key is asked for, fill in the PIN code.



Write the password which you will find on the configuration document in the box.

5. In the address field in your browser, fill in 192.168.250.1

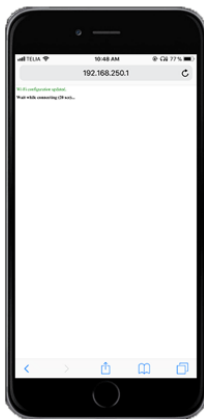


Open your browser and surf into:
192.168.250.1

6. You should now be able to see information with SSID (name on WI-Fi network) and password. Be aware that the fields are case sensitive.



Click on the name of the wifi that
Aura should be connected to and
insert the password.



Wait for connection...
* If any connection disturbances
occurs, shut off the cell phones
own 3G/4G connection.

7. Fill in SSID and password for your wireless network and press update.



Connected to means that the Aura is now connected.



You can now use my.charge.space and sign up your Aura for all cloud based features.

WI-FI supported standards:

802.11 b/g/n

2,4 GHz

Product data

Electrical information

- Power: Up to 63 A, 400 V, 3-phase, 50 Hz
- Charging current: 6-32 A per socket
- Cable connection: L1-L3, N, PE. WAGO terminals are designed for cable areas between 2,5-16 mm².
- RCDs: Internal RCBO type A + 6 mA DC protection (equivalent to RCD type B)
- 32 A RCBO for each socket
- 6 A MCB for internal electronics

Mechanical information

- Weight: 10 kg
- Product dimension: Height 405 mm, width 367 mm, depth 159 mm
- Product material: Aluminum chassis and plastic lid
- Rating: IP55 and IK10
- Temperature span: -25 °C till +40 °C

- Lock: Cylinder lock with two sets of keys

Charging information

- Charging sockets: Two Type2 sockets
- LED rings: Two set of LED rings around the sockets
- ISO 15118: Prepared for. Further instructions may be found in ISO 15118 package
- Energy measurement
- RFID

Standards

- IEC: EN 61851-1:2011, EN 61851-22:2002 (through 61851-1), EN 62196-2:2012 + A11 + A12/AC
- CE

Safety information

- Ground fault detection: Internal RCBO type A + 6 mA DC protection (equivalent RCD type B)

Maintenance of Aura

The owner is responsible for maintaining Aura. Maintenance includes the following:

1. The RCBOs and MCB must be conditioned twice a year according to the manufacturer. If you have chosen to install using 1 phase, the test function on the RCBOs will not work (however the unit does work). To condition the RCBOs, apply an external ground fault with test equipment to test the function.
2. Check sealing around chassis and sockets.
3. Control condition of power cable.
4. Wipe dirt off the front.

Product recycling

Recycling is part of any products lifecycle. Aura contains aluminum, plastic and electronics and should be recycled accordingly.