VETON

TWO

(plug)

Manual

NL | EN | FR

For the most recent version of this manual check our website.
Do not discard this manual, it contains your device's serial number.

VETON

Charging masterpieces.

EN

Foreword.

First of all, thank you for purchasing a Veton Two charging station. We are proud of our craftsmanship and hope you enjoy it just as much.

Please read the operating instructions carefully. It contains, in addition to essential information on installation and use, important safety information, as well as the serial number of the Veton Two charging station.

As our product is an application and assembly of electrical systems, this installation must be carried out by a competent installer. For this reason, it is also strongly discouraged to disassemble the assembly carried out by Veton.

Incorrect installation or (re-)assembly may lead to, among other things, short-circuits, fire and/or smoke, and serious bodily injury. Veton cannot be held liable for damage to persons, animals and/or objects resulting from non-compliance with the requirements in this manual.

Veton reserves the right to make any changes to the product (and/or its technical characteristics), and the instructions for use and/or installation, at any time and without prior notice.

If in doubt, always contact a professional or distributor of Veton products.

1. General provisions

Purpose of the document.

This operating and installation manual is part of the product and contains information for the user to safely operate the Veton Two charging point and for an authorized electrician to safely install it.

Handling this manual.

- Read the operation and installation manual before installing and commissioning the Veton Two charging station.
- Keep this manual within reach.
- Pass this manual on to a subsequent owner or user of the charging station (this document contains the serial number).

Regulatory use.

The Veton Two charging station is suitable for charging electric vehicles in accordance with IEC 61851-1, charging mode 3. In this charging mode, the charging station ensures that:

- The voltage is switched on only when the vehicle is connected correctly;
- The maximum current is adjusted.
- The AC/DC converter is located inside the vehicle.

Use of symbols and highlighting.

Danger.
High-risk hazard which, if not avoided, could result in death or serious injury.

indication.
The indication explains a technical peculiarity or possible damage to the product, if ignored.

Warranty and liability.

Veton is not liable for defects and damage that can be traced back to non-observance of the operating and installation instructions. This exclusion of liability applies in particular to:

- Improper use.
- Installation and commissioning by an unauthorized electrician.
- Repairs not carried out by a Veton service center.
- Use of non-original spare parts.
- Conversion of the device without explicit permission from Veton.

2. Safety

General.

The charging station may only be used by persons over 18 years of age.

The Veton Two charging station has been developed, manufactured, tested and documented in accordance with the relevant safety and environmental regulations.

Only operate the device in a technically perfect condition. Faults that adversely affect the safety of persons or the device must be rectified immediately by an authorized electrician in accordance with the nationally applicable regulations. The signaling in the vehicle may differ from this description. For this, the operating instructions of the respective vehicle manufacturer should always be read and observed.

General safety instructions. ⚠

- Dangerously high voltages in the device.
- Check the charging station for optical damage before use. Do not use the charging station if it is damaged.
- Installation, electrical connection and commissioning of the charging station may only be carried out by an authorized electrician.
- Do not remove markings, warning symbols or rating plate from the charging station.
- The charging outlet should only be replaced by an authorized electrician according to the instructions.
- It is strictly forbidden to connect other devices to the charging station.
- When the charging outlet is not in use, ensure it is covered.
- Ensure that the charging cable is protected from being run over or trapped and other mechanical hazards.
- If the charging station or charging outlet is damaged, notify the service center immediately. Do not use the charging station again.
- No persons should be in the vehicle during the charging process.
- Protect the charging outlet from contact with external heat sources, water, dirt and chemicals.
- Do not extend the charging cable with an extension cable or adapter to connect it to the vehicle.
- Remove the charging cable only by pulling the charging plug.
- Never clean the charging station with a pressure washer or similar device.
- Switch off the electric external power supply before cleaning the charging station.
- Ensure that only persons who have read these operating instructions have access to the charging station.

Safety instructions for the installation. ⚠

- Installation and connection of the charging station should only be carried out by an authorized electrician.
- Use only the supplied mounting material.
- The Veton Two safety concept is based on an earthing system that must always be guaranteed. The authorized electrician must ensure this during installation.
- Do not install the charging station in an explosive environment (Ex zone).
- Install the charging station so that the charging cable does not block passage.
- Do not install the charging station in environments with ammonia or ammonia-containing air.
- Do not mount the charging station where it could be damaged by falling objects (e.g. cable drums or tyres).
- Do not install the charging station near installations that spray water, e.g. car washes, pressure washers or garden hoses.
- Set up the charging station in such a way as to prevent vehicles from inadvertently driving into it and damaging it.

If damage cannot be excluded, take protective measures.

- If the charging station is damaged during installation, it must be taken out of service. It must be replaced.

Safety instructions for the electrical connection. ⚠

- You should take into account local legal requirements for electrical installations, fire protection, safety regulations and escape routes at the planned installation location.
- Ensure that the electrical connections are de-energized before connecting the charging station to electricity.
- When commissioning the charging station for the first time, do not connect a vehicle yet.
- Ensure that the correct connecting cable is used for connection to the mains.
- Do not leave the charging station unattended when the installation cover is open.
- Do not install the charging station without an installation frame.
- Observe any notifications to the grid operator.

Safety instructions for commissioning. ⚠

- Commissioning of the charging station must only be carried out by an authorized electrician.
- The correct connection of the charging station must be checked by the authorized electrician before commissioning.
- Before commissioning the charging station, check the charging station and charging outlet for optical damage. It is not permitted to commission a damaged charging station or a charging station with a damaged charging outlet.

3. Scope of delivery

Charging station packaging contents

- 1 x Veton Two (plug) charging station
- 1 x Veton Two (plug) ground plate (including 4 x set screw - M8 x 10)
- 2 x concrete anchor - M10 x 200 (if delivered without concrete base)
- 2 x set screw - M8 x 20
- 2 x hexagonal flange nut - M10 (if delivered without concrete base)
- 4 x hexagon socket head cap screw (6 x if delivered with concrete base) – M10 x 12
- 2 x BBC Cellpack EasyCell® gel box

Installation cabinet contents

- 1 x Veton Components Cabinet (components available separately on request)

4. Technical specifications

Charging controller
Phoenix Contact Charx SEC Series
SEC-3XXX / SEC-1000

Connectivity
Ethernet, MQTT, Modbus TCP/RTU, REST API
Optional 4G/2G connection

Charging specifications
Mode 3 charging capability 3,7 - 13,5kW
3 x 400V+N (16A - 20A per phase)

Overload protection
Dynamic load balancing

Web application
Integrated web app to manage charging sessions

Charging output
2 x integrated cable with type 2 plug
2 x 20A, effective length of 4 meters

OCPP compatibility
Connect with provider of choice
Optional MID certified monitors required

Energy monitoring (optional)
2 x MID certified energy monitor
Calculation of transaction costs

Authentication
Optional RFID integration

Open platform
For own applications
PLC Next based

Residual Current Detection
Built-in residual current protection
6mA DC / 30mA AC

Dimensions
1152 x 209 x 186 mm
H x W x D

Component housing
Built-in utility closet
600 x 315 x 155 mm

Cable
2x 5G 4mm^2 + 8 x 0.34mm^2 (CAT 7 SFTP)
Between components and charger

Max. cable distance
100 meters
Between components and charger

Ambient lighting
LED courtesy light
Separate control possible

Charger housing
Powder coated steel & aluminium

Degree of protection
IP65 / IK10

5. Installation ⚠

This manual describes the (basic) installation of a Veton Two charging station. For reasons ranging from sustainability to modularity, the actual charging point and the electrical charging components are separated. The charging point is installed within reach of the vehicle(s), the charging components are placed in an installation cabinet, or other DIN-rail compatible cabinet.

The description of the installation in this chapter is limited to the placement of the charging station and the connection to the above-mentioned electrical charging components (cables to be laid prior to installation). The connection of the charging infrastructure to the current electrical installation is possible in several ways, and should be carried out with the professional judgment of an experienced electrician.

Tools and materials needed.

- Rapid concrete*
- Socket spanner or open-end spanners
- Socket spanner / socket spanner attachment - 8 mm
- Socket spanner / socket spanner attachment - 15 mm
- Allen spanner - 2.5 mm (included with BBC Cellpack EasyCell® gel box)
- Allen spanner - 3 mm

* The installation described in this manual uses rapid concrete for the installation. Alternative methods are possible.

1. Cabling.

A well working charging infrastructure starts with the right cabling. Make sure that the cables described below have been pulled before installing the charger.

Overview cabling Veton® Two (plug):

Default installation

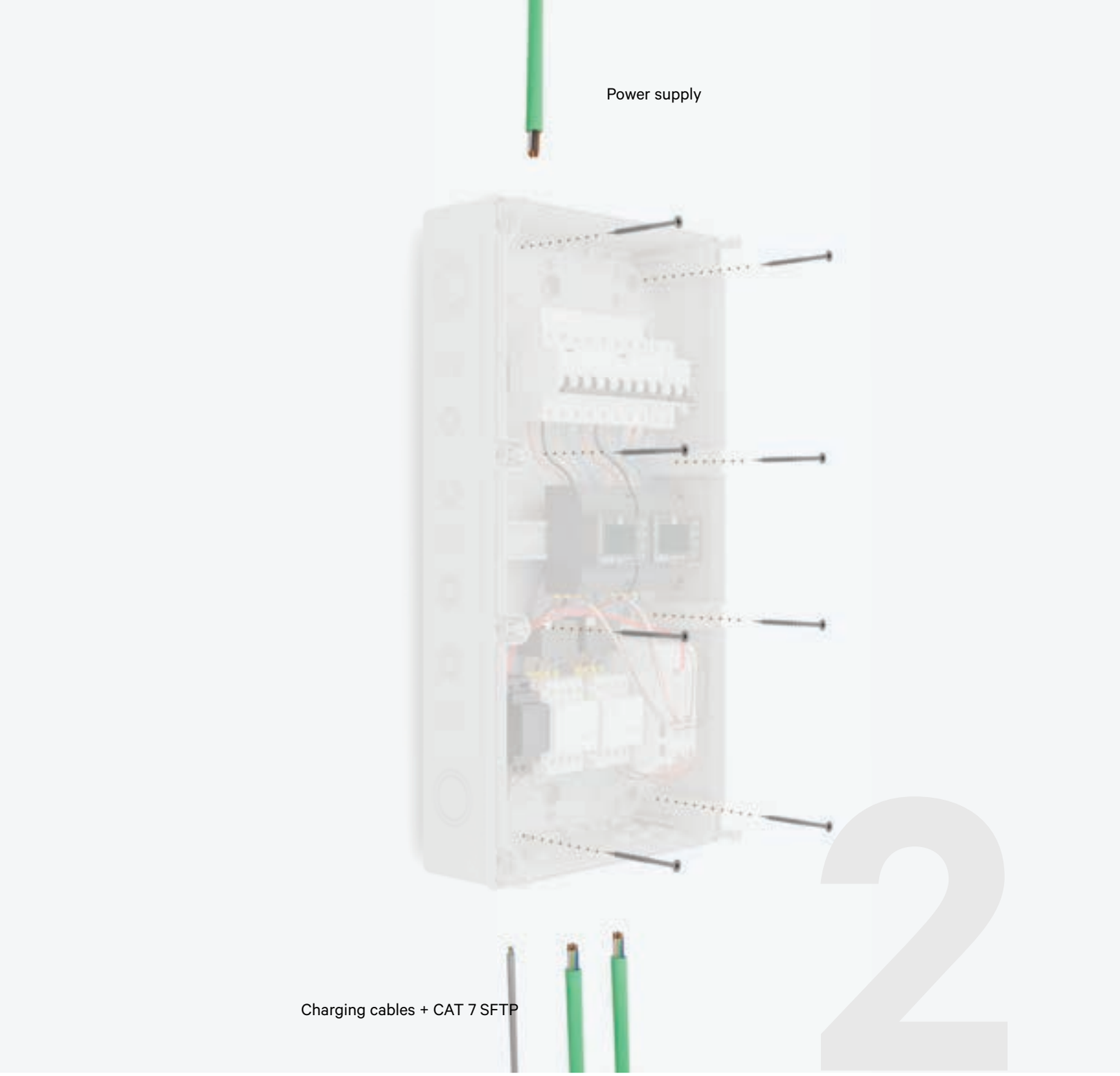
Power supply	
5G 4mm^2	x 2
Signal	*Cores*
Control pilot	2
LED lighting	2

Optional extras

Signal	*Cores*
Connect package*	4

Example: A Two (plug) incl. RFID reader requires 2 x 5G 4mm^2 cables and 1 x CAT 7 SFTP cable with (at least) 6 cores.

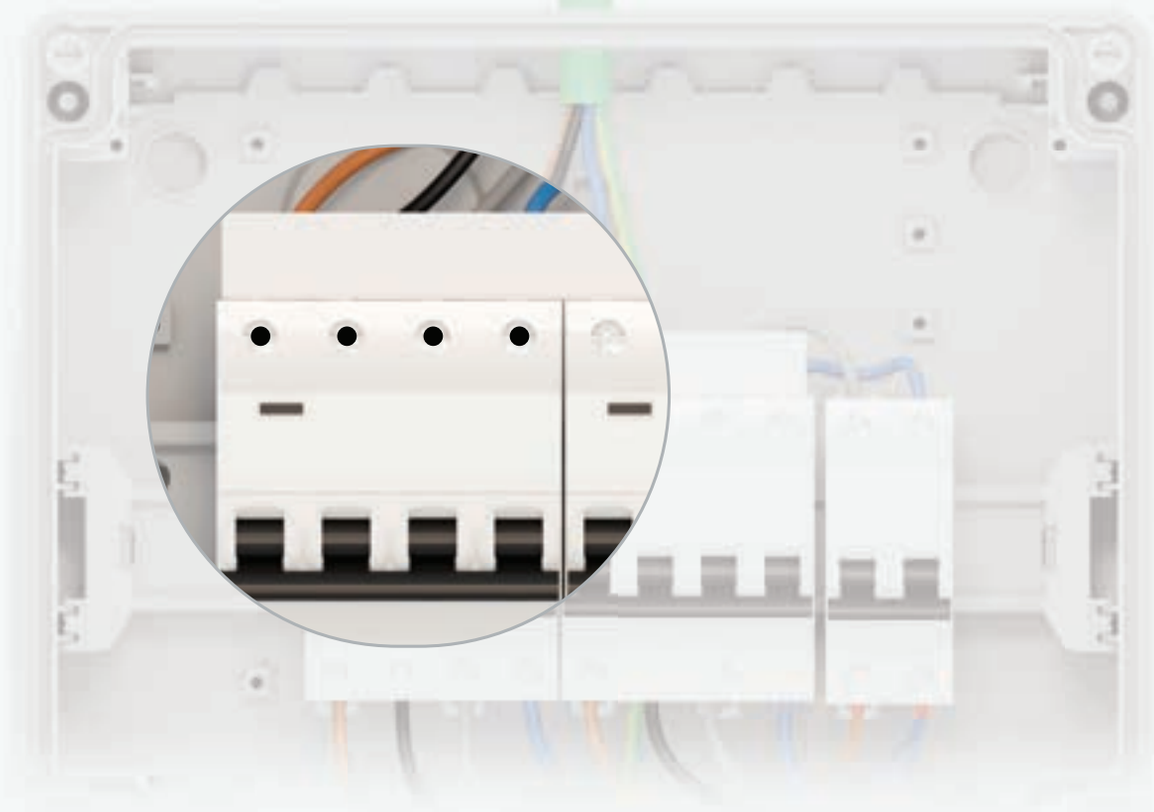
* When connecting an optional RFID reader / Connect package, the + and - cables of the RFID reader can be combined with those of the LED lighting.



2. Hang the electrical cabinet*.

Attach the electrical cabinet supplied with the charging components near the electrical set-up of the property.

* This step only applies if your electric charging components were supplied in an installation cabinet.

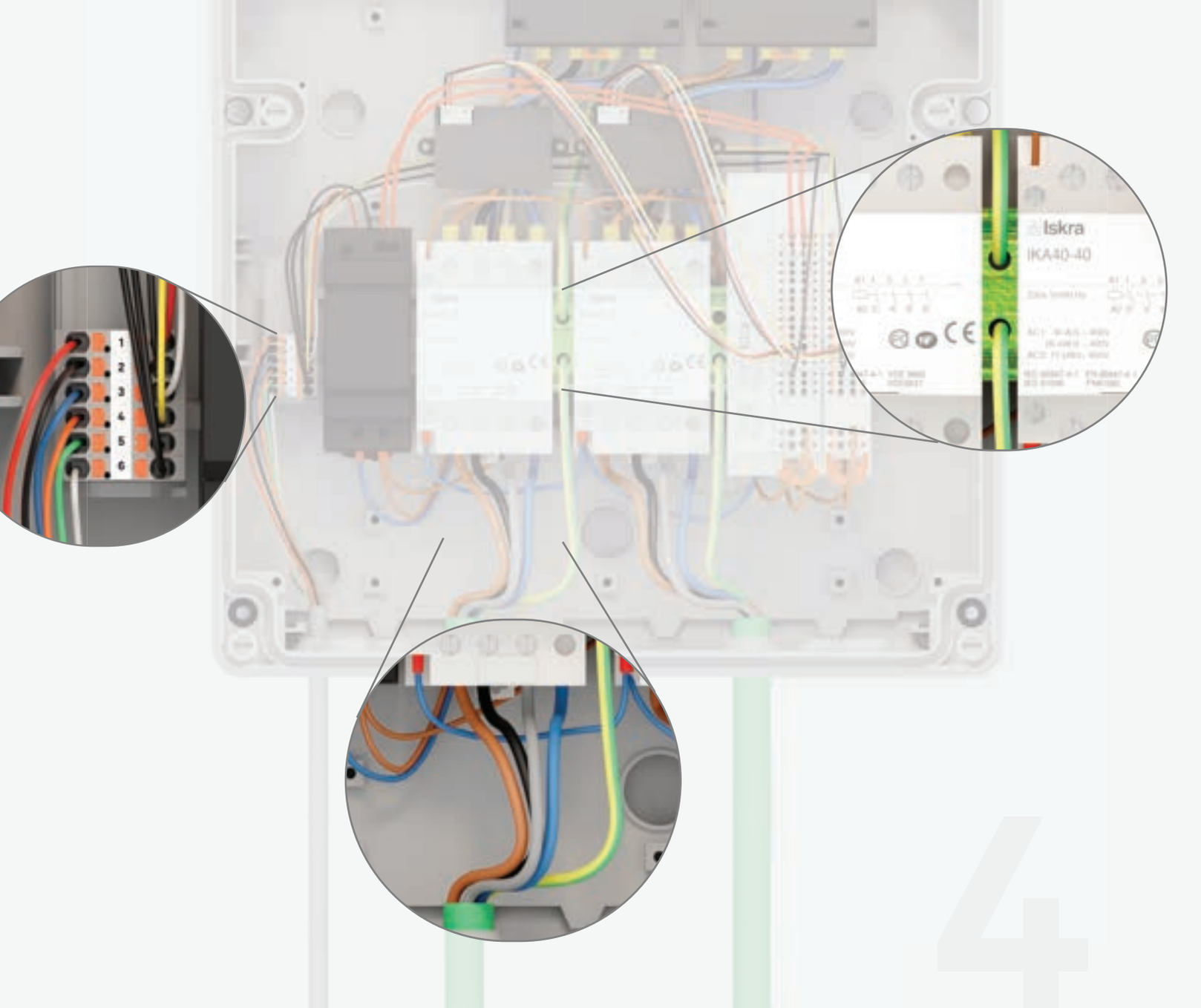


3

3. Power supply.

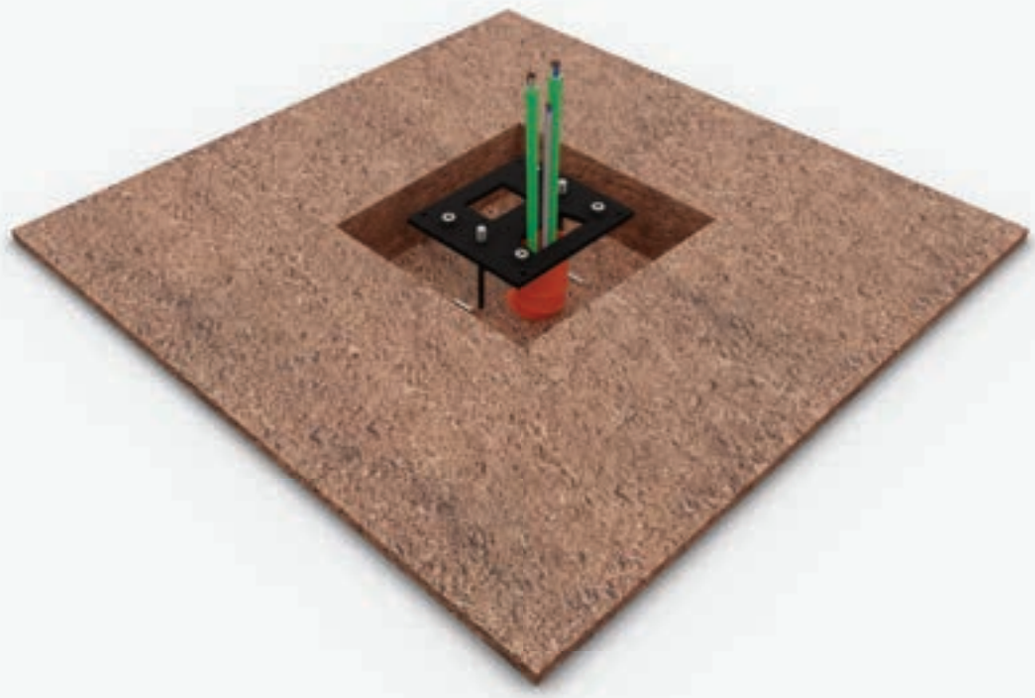
Connect the power supply to the electrical cabinet by connecting the cores to the residual current breaker (use schedule below). Connect the core for grounding to one of the ground terminals. The ground is passed to the other ground terminal via the DIN rail.

Connection type	●	●	●	●
3 x 400 + N	L1	L2	L3	N
3 x 230V			L1	L2
1 x 230V			L1	N



4. Connecting the charging cables and the signal cable.

Connect the grounding cables with the grounding terminals. Subsequently, connect the signal cable by connecting the necessary amount of cores to the provided terminal blocks. Make sure to note the chosen colors, as they will be connected to the charger in the same order.



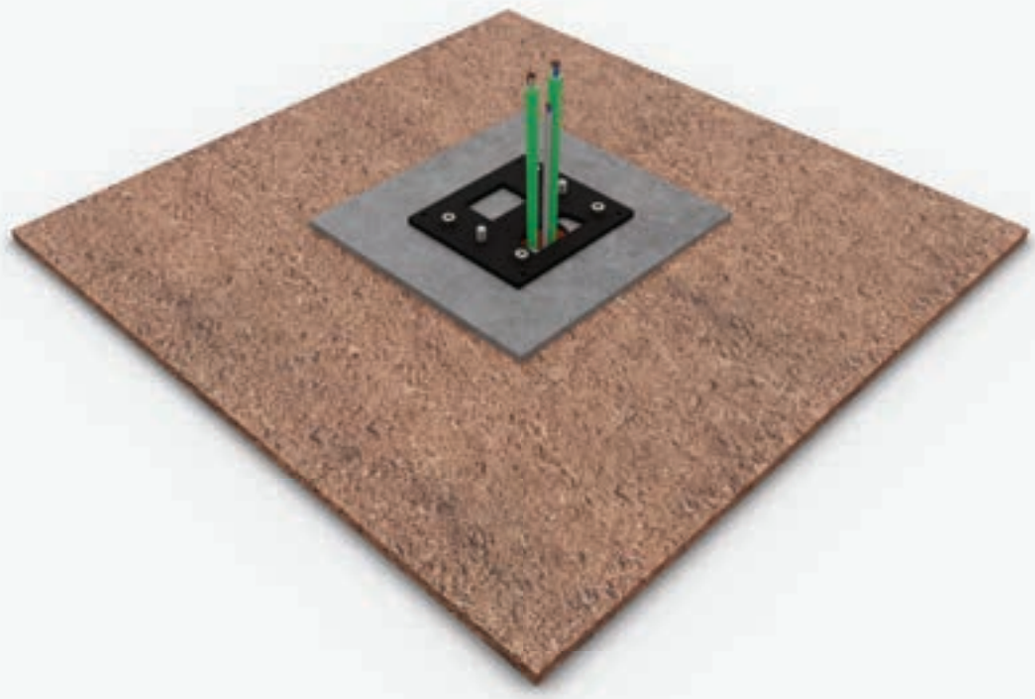
5A

5A. Place the ground plate*.

Place the ground plate with concrete anchors in the excavated pit (within reach of the vehicle(s)). Pull the prepared cables through the front opening of the ground plate. Make sure the plate is stable, use additional support if necessary. Make sure the cables are long enough (at least 75 to 100 cm above the ground plate), these cables are later used to make connections.

* Do you have a concrete base? Please proceed to steps 5C and 5D.

* There are several ways to place the ground plate. This method guarantees a secure fixing in the majority of situations. Alternative methods depend on the substrate and materials used when constructing the location where the charging station will be placed.

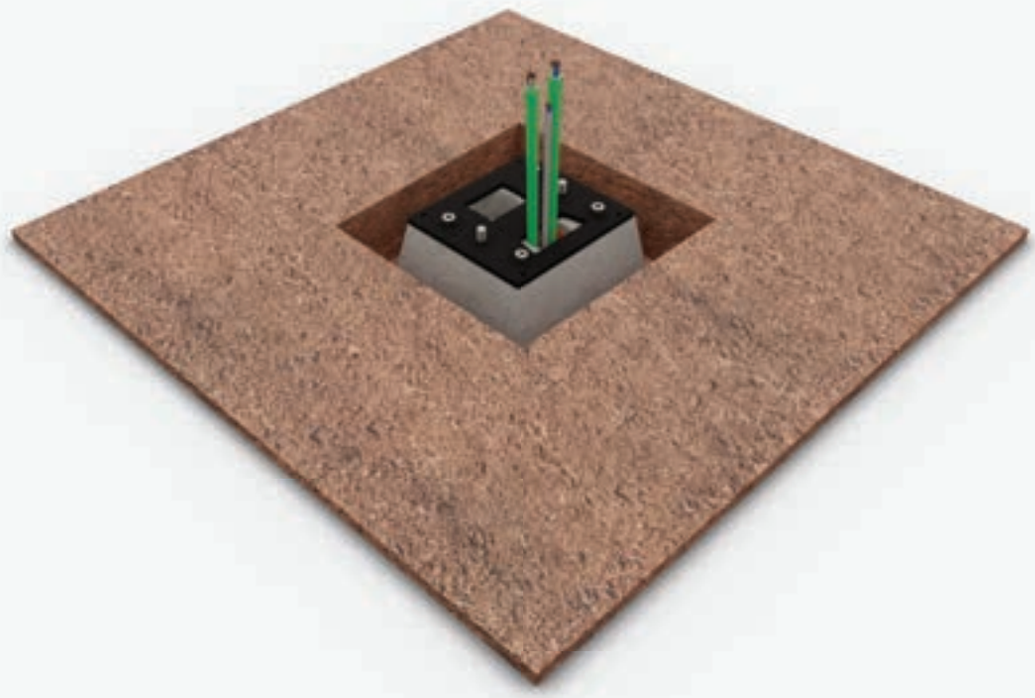


5B

5B. Pour concrete*.

Pour the necessary amount of rapid concrete to fill the excavated pit. Make sure that the concrete layer extends just below the ground plate, and that the concrete anchors extend sufficiently above the cement (20mm - 30mm above the ground plate). This is important because the rest of the charging station will be fixed on this plate. Any further finishes are to be done by yourself.

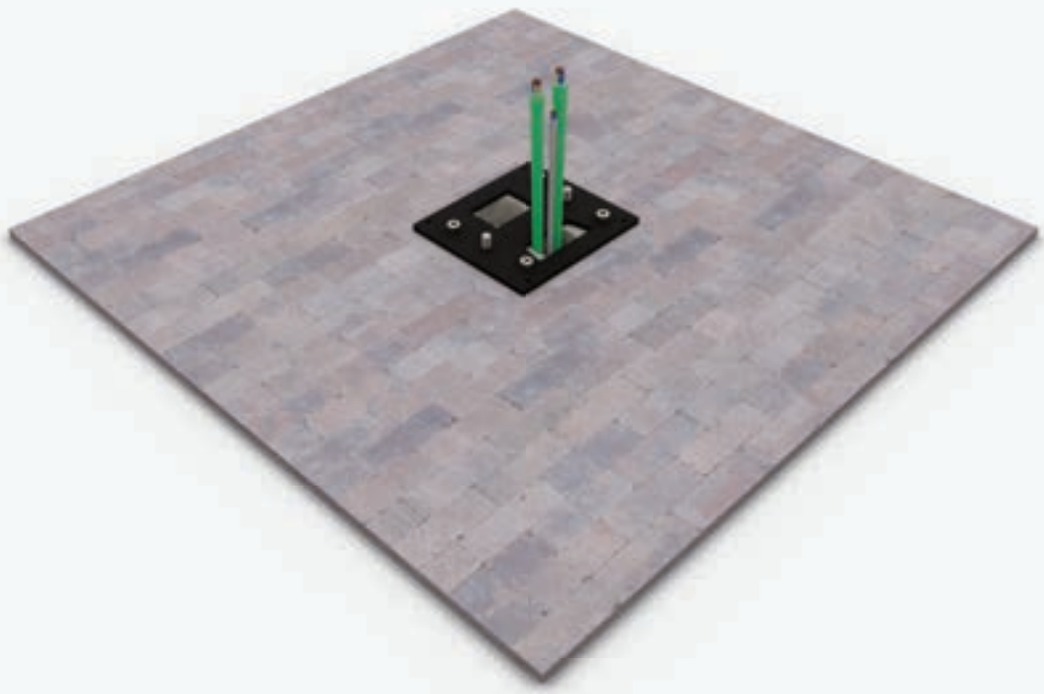
* Do you have a concrete base? Please proceed to steps 5C and 5D.



5C

5C. Place concrete base.

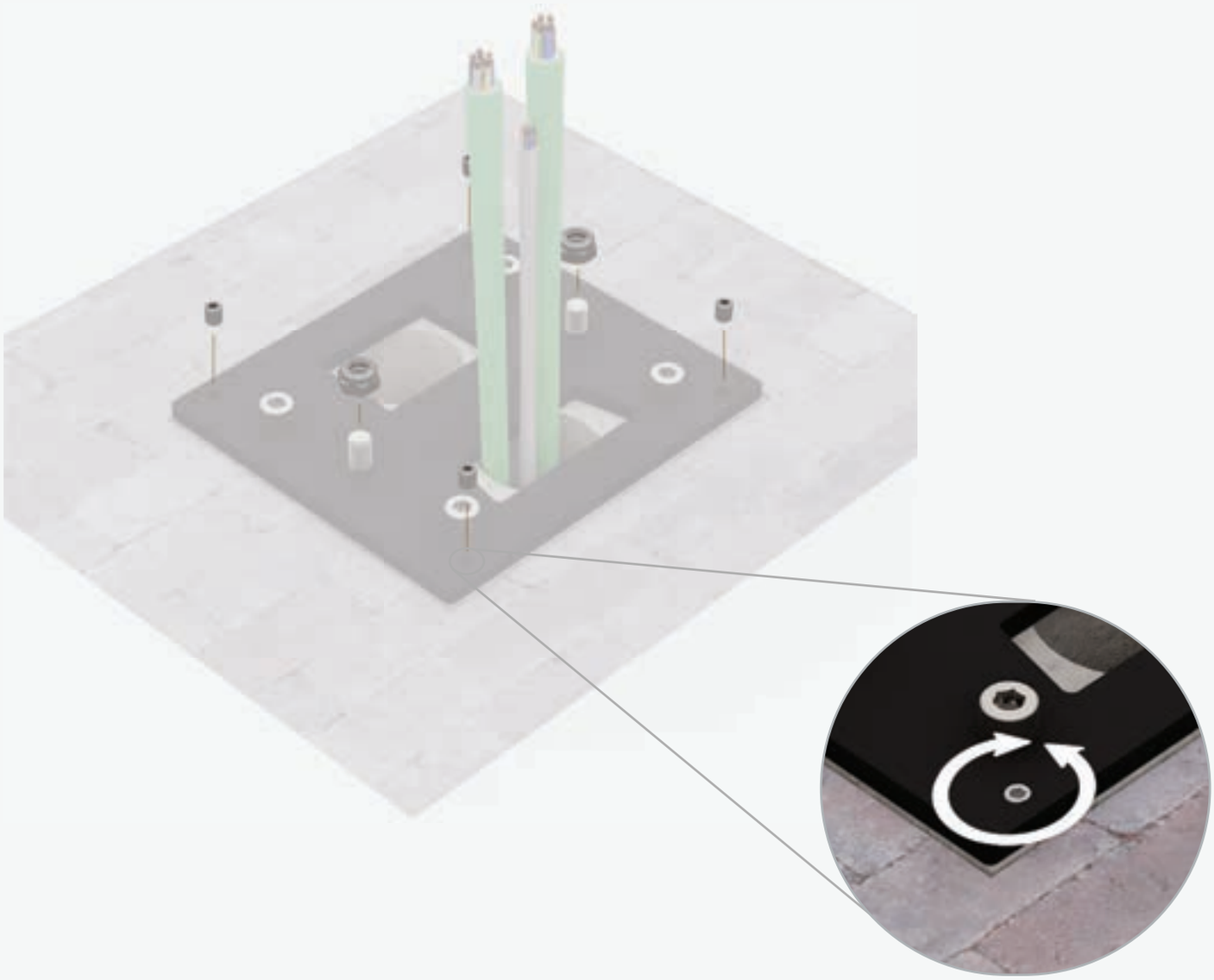
Place the concrete base in the excavated pit (within reach of the vehicle(s)). Pull the prepared cables through the front opening of the concrete base, as well as the ground plate. Make sure the cables are long enough (at least 75 to 100 cm above the ground plate), these cables are later used to make connections.



5D

5D. Finishes.

Fill the rest of the excavated pit with soil or rapid concrete. Any further finishes are to be done by yourself. Make sure that the finishing layer extends just below the ground plate.



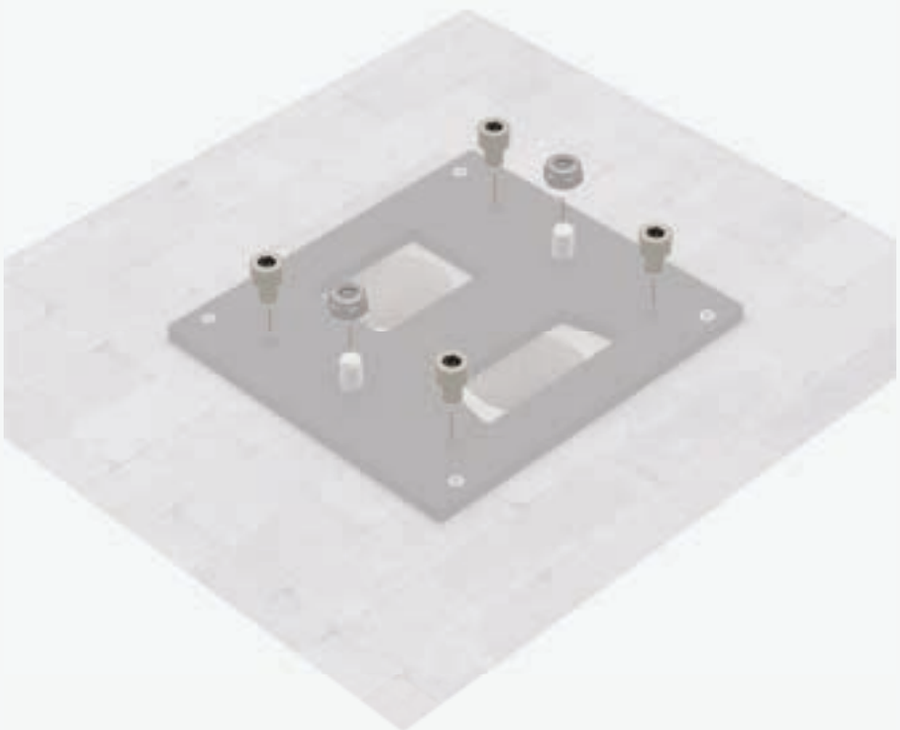
6

6. Attach ground plate and level.

Attach the 2 nuts (M10) on the concrete anchors to secure the plate. Adjust the provided adjusting screws* in the ground plate by tightening or loosening them**. Use a level to do this.

* If the set screws already inserted are too short, the ground plate can be further adjusted by replacing them with the supplied longer set screws.

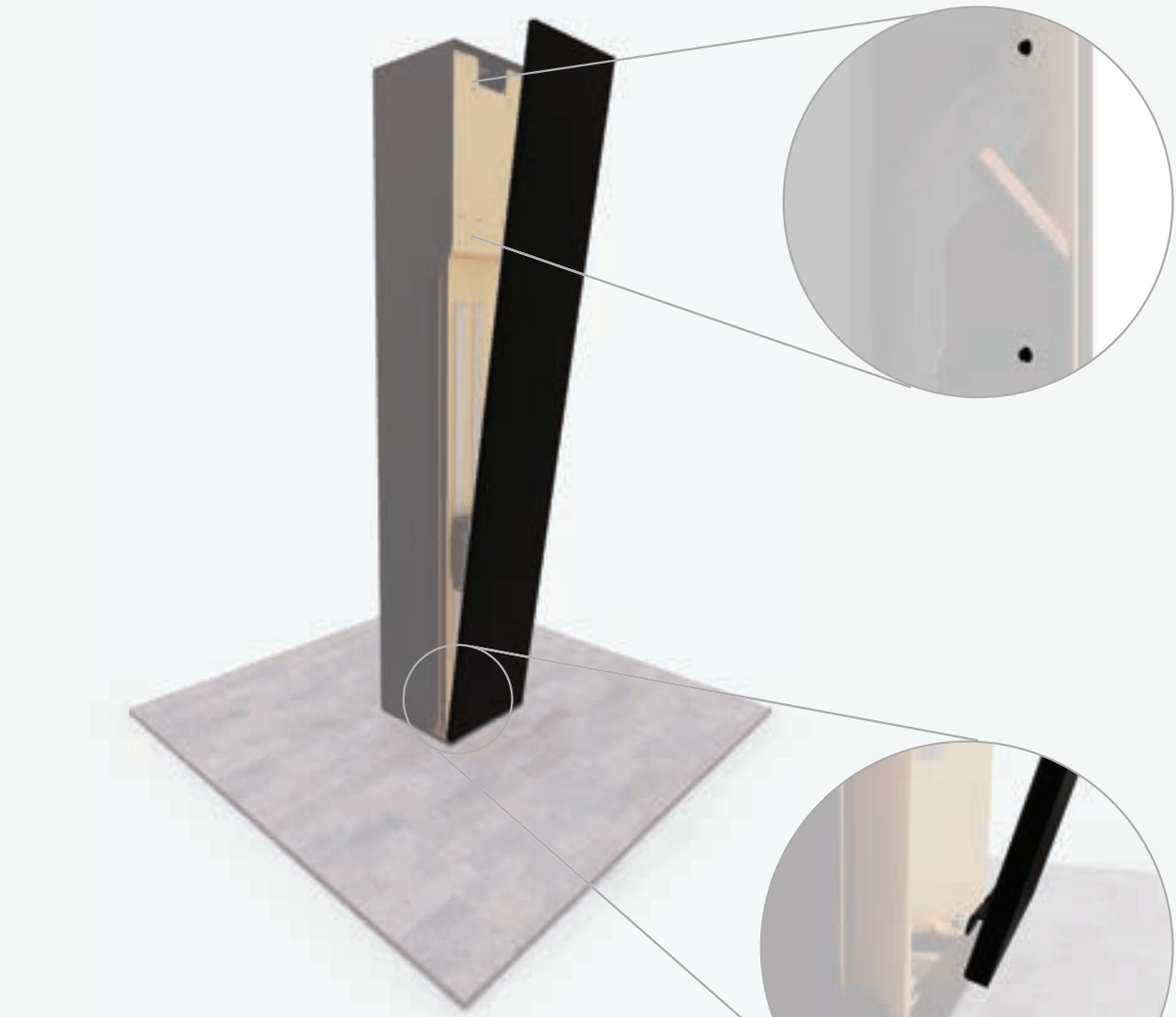
** The adjusting screws are still accessible after mounting the charger by removing the front and back plate.



7

7. Remove the M10 nuts and screws.

Unscrew the M10 nuts and screws from the ground plate, and keep them separate until the next step.



8

8. Remove front plate.

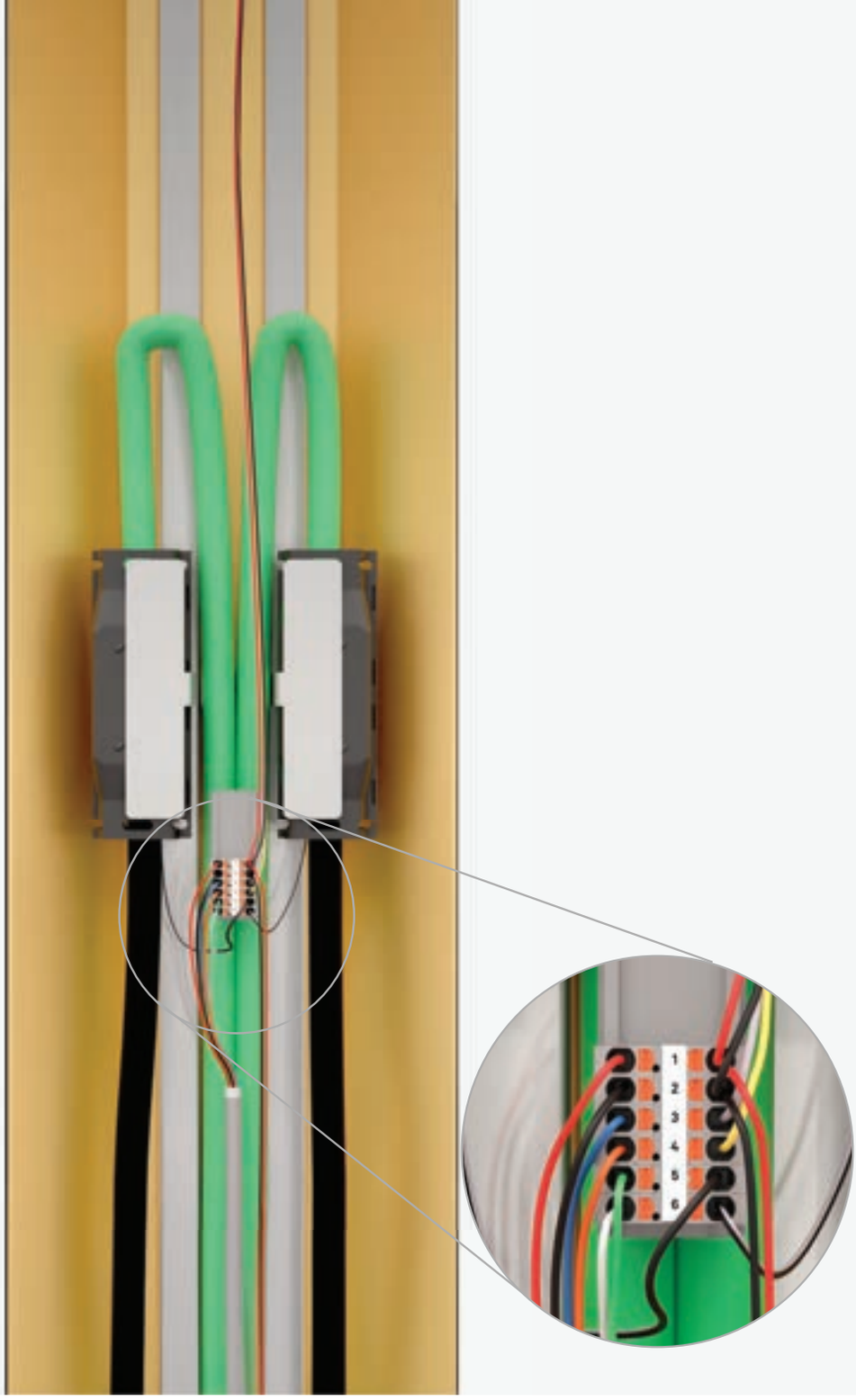
Remove the front plate by unscrewing the 4 nuts (M5) that fix the front plate. These can be found on the inside of the charger, right above and under the plug of the charging cable. Tilt the front plate and remove the hook from the provided cavity at the bottom of the charger. Securely place it aside until further instruction.

9

9. Place and fix Veton Two.

Place the Veton Two charging station on the ground plate. Reattach the 2 nuts (M10) to the concrete anchors (or 2 x socket head cap screw (M10) in case of a concrete base) to secure the charger. Then further secure the charger by screwing the 4 screws (2 x hexagon head screw - M10 + 2 x socket head cap screw - M10) back into the holes provided.

10

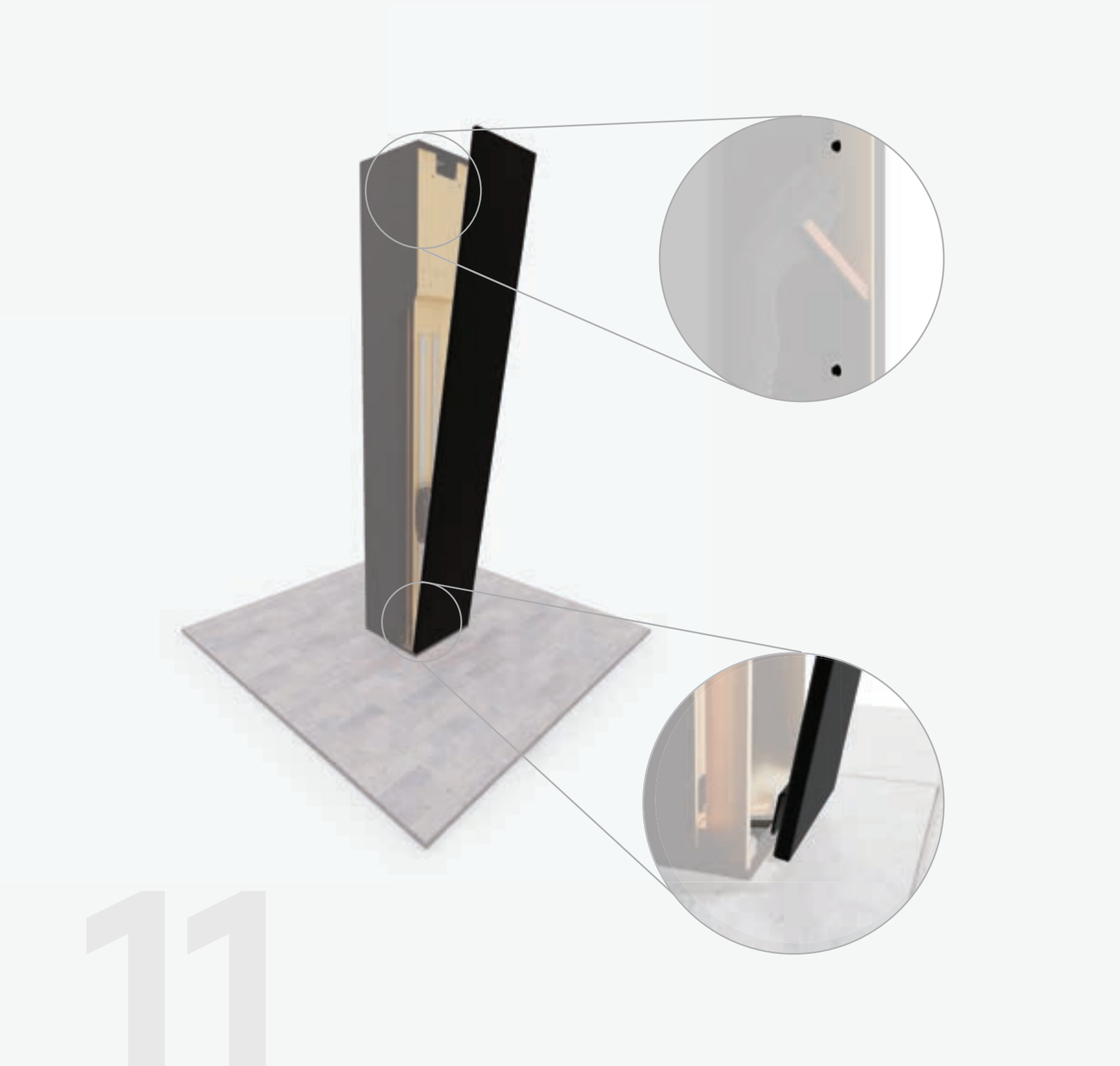


10. Connections.

Connect the power cables from the contactors to the charging cables by screwing the corresponding wires into the terminal blocks included with the supplied BBC Cellpack EasyCell® gel boxes.

Place the terminal blocks with the fastened cables in the provided BBC Cellpack EasyCell® gel boxes. Then close the boxes until a distinct clicking sound is heard. Subsequently, place the gel boxes behind the provided brace.

To connect the LED light, Control Pilot and RFID reader (optional), terminal blocks are provided. These were prewired to the right components, both within the charger as within the electrical cabinet. Connect the signal cable's cores with the same colors and in the same order as was done in step 4.



11

11. Attach front plate.

Place the front plate in front of the post, making sure the hook is at the bottom. Tilt the front plate and place the hook in the cavity provided. Then tilt the top towards the post, making sure the bolts are placed in the corresponding holes. Then secure the plate by tightening the nuts (M5) on these bolts.

12

12. Configuration.

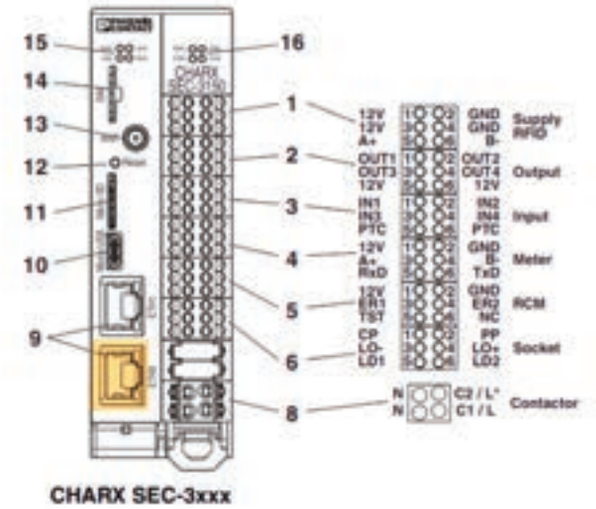
The basic controller settings have already been set up, prior to delivery. Surf to the web interface of the controller by following the steps stated on the next page.

Follow one or more of the manuals and/or quick start guides on our website by following the above QR code or by surfing to **www.veton.be/downloads**. This page provides information about basic configuration of the charging points, OCPP, RFID whitelist, and others.

Check network cable.

1

Make sure the controller is connected to the network by connecting a network cable to a router or switch on the one side, and the ETH0 port of the charging controller on the other.



CHARX SEC-3xxx

Switch on the circuit breaker.

2

Wait about 5 minutes until the controller has booted after turning on the circuit breaker.

Surf to the address of the controller.

3

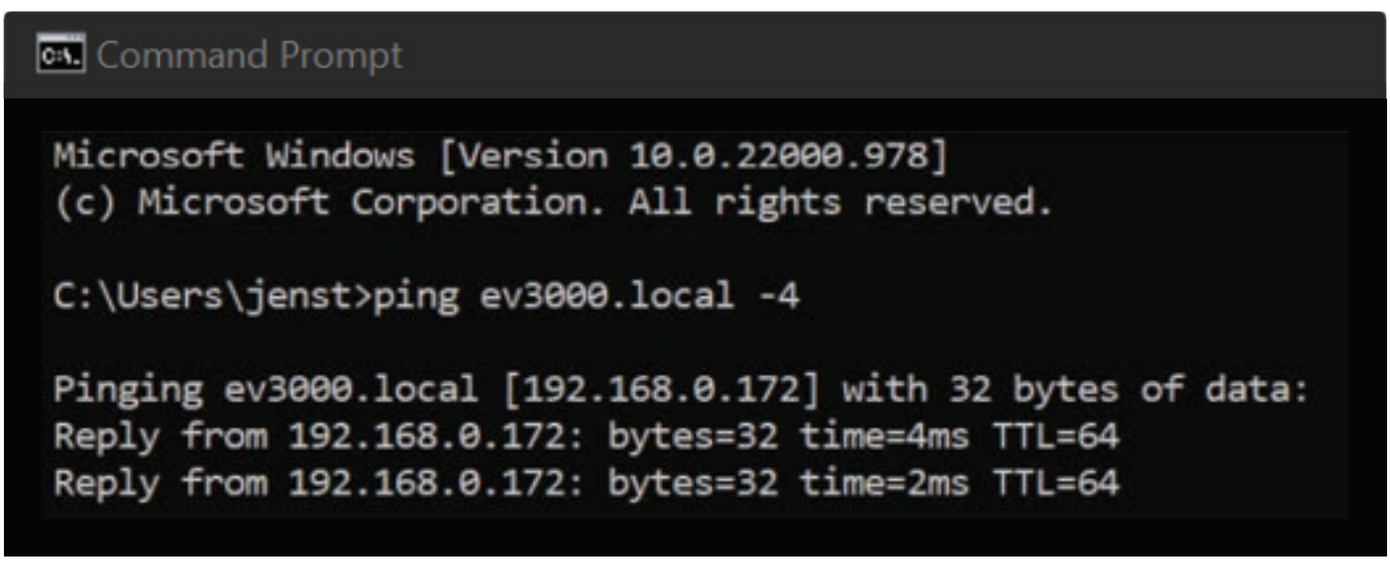
If a DHCP server exists in the network, the controller will automatically be assigned an IP address and host name. The controller can be accessed by surfing to http://ev3000.local/.

If any problems occur, follow the steps below to surf directly to the IP address of the controller.

Execute the following command in Command Prompt (Windows) or Terminal (Mac) to ping the host name.

> ping ev3000.local -4 (Windows)
> ping ev3000.local (Mac)

In this example, the IP address is 192.168.0.172. Surf to http://192.168.0.172/ to access the controller.



6. Operation

Your Veton Two charging station has been installed, inspected, and is ready for use. This section of the manual describes how to use the charging station, and what to consider to safely use it.

- Always consider the vehicle requirements before starting vehicle charging.
- Park the vehicle at the charging station in such a way that the charging cable is not tense.

Start charging

Open the door of the Two.

Remove the charging cable from the holder.

Insert the charging plug into the car's charging port (maximum 4 meters from the Two).

Close the door of the Two.

Scan RFID (if applicable). See page 57 for the different statusen and LED feedback.

Status and LED feedback

Veton Two chargers that are equipped with the optional 'Connect package' can display their status via an LED status light. See below table for the different possible status indications, both for starting up a charging session as well as frequent status and error notifications.

Status	LED indication	Type & duration
Starting a charging session		
Charging point available, no vehicle connected		Continuously on
Vehicle connected, awaiting authentication		Blink (1 sec)
RFID card accepted		On (1 sec)
Authentication request in process		Blink (0.5 sec)
Vehicle connected, charging active		Fade (4 sec)
Other status & error notifications		
Vehicle connected, charging completed		Continuously on
RFID card not accepted		On (1 sec)
Vehicle connected, charging suspended (vehicle)		Fade (3 sec)
Vehicle connected, charging suspended (charging point)		Fade (0.5 sec)
(OCPP) backend online, charging points available		Fade (2 sec)
(OCPP) backend offline, charging points unavailable		Blink (1 sec)
Charging point reserved		Blink (1 sec)
Charging point offline & unavailable (error)		Continuously on

Visit **www.veton.be/support** to find troubleshooting for common problems and notifications.

Stop charging

Interrupt the charging process on the vehicle side and remove the plug (this step is vehicle-specific).

Open the door of the Two.

Insert the connector into the Two's cradle. Make sure the cable is fully inserted into the housing.

Close the door of the Two.

7. Charging components

A Veton Two (plug) charging station consists of a collection of charging components. In the table below, there is an overview of which components are integrated in a default Veton Two (plug) model (**two** charging points), as well as in a collection of **N** charging points*.

Manufacturer	Model	Art. number (manufacturer)	Amount (Veton Two)	Amount (N charging points)**
Electrical cabinet				
Spelsberg	AK 28 Plus	73362801	2	-
ISKRA	KAFI4 A C20/0,03	786.100.932	2	N
ISKRA	IKA40-40/230V50/60Hz	30.045.518	2	N
ISKRA	RI52 C6	786.091.118	1	1
Phoenix Contact	EEM-EM357-EE	1311985	2	N
Degson	DS10-PE	11040000009	2	N
Phoenix Contact	Charx SEC-3000	1139022	1	1
Phoenix Contact	Charx SEC-1000	1139034	1	N-1
Western Automation	RCM14-03	RCM14-03	1	N
YingJiao	YSD60S Series	YSD60S-1204500	1	1
Charging station				
Phoenix Contact	Charx RFID/NFC-PCB	1391227	1	1 per charging station
BBC Cellpack	Easycell 3V	389677	2	N

* Maximum of 12 charging points per circuit.

** Example: For 3x Veton Two (plug), 1x Phoenix Contact SEC-3000 is supplied and 5x Phoenix Contact SEC-1000.

8. Declaration of conformity

Manufacturer information

Veton BV
Boomsesteenweg 78/10
2630 Aartselaar
Belgium

Declares the conformity of the product:

Veton charging stations type One, Two, Wall and Wall+

In accordance with European directives:

Low voltage directive 2014/35/EU
EMC directive 2014/30/EU

CE

Application (harmonisation of legislation):

- ÖVE/EN 61851-1
- NBN EN 61851-1
- NEN EN IEC 61851-1
- SFS-EN 6185
- NF EN IEC 61851-1
- DIN EN 61851-1
- BS EN 61851-1
- CEI EN 61851-1
- NEK-EN-6185-1

All products listed bear the CE mark.

Duffel, 1 February 2022

Brendan Brentjens, business manager

Jens Téblick, business manager

VETON

Charging masterpieces.

Veton BV

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Serial number

Serienummer / Numéro de serie