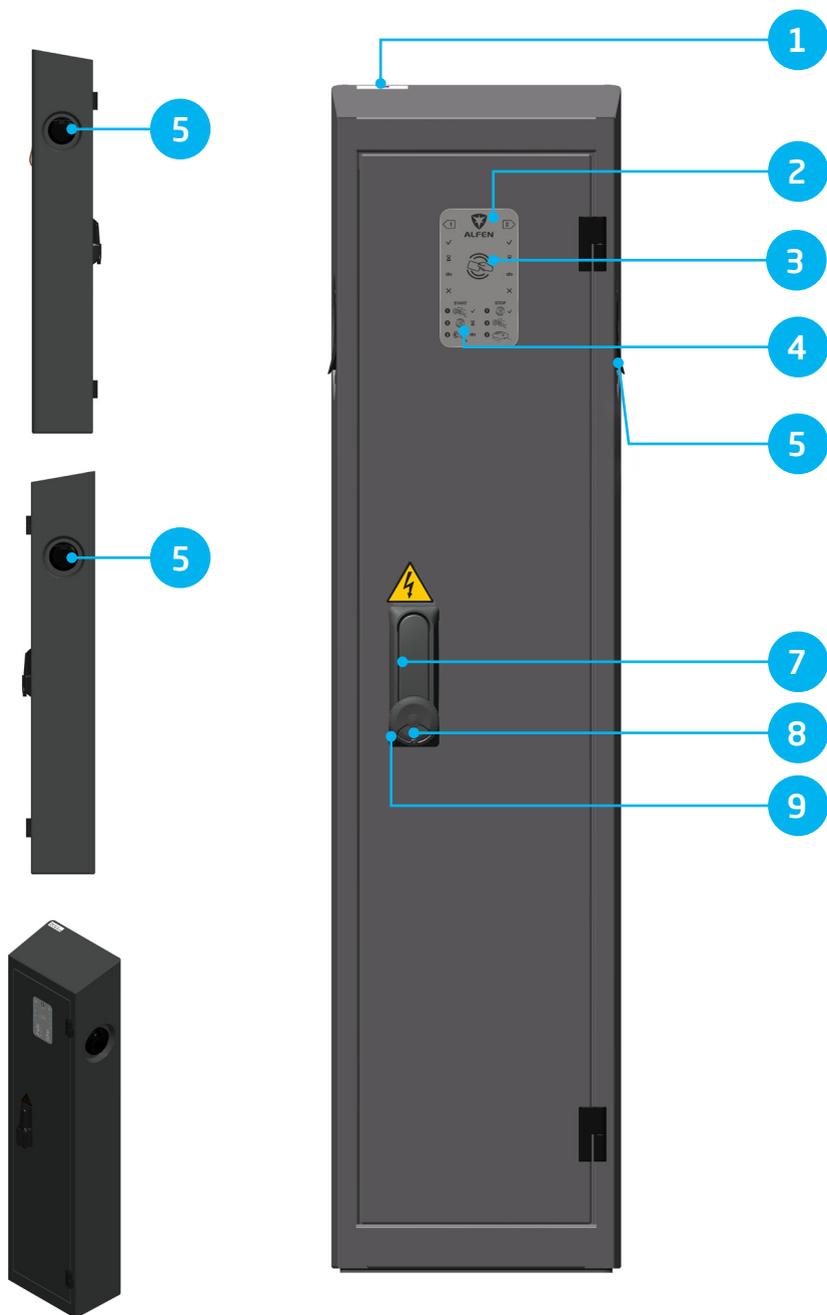




# Twin 4XL

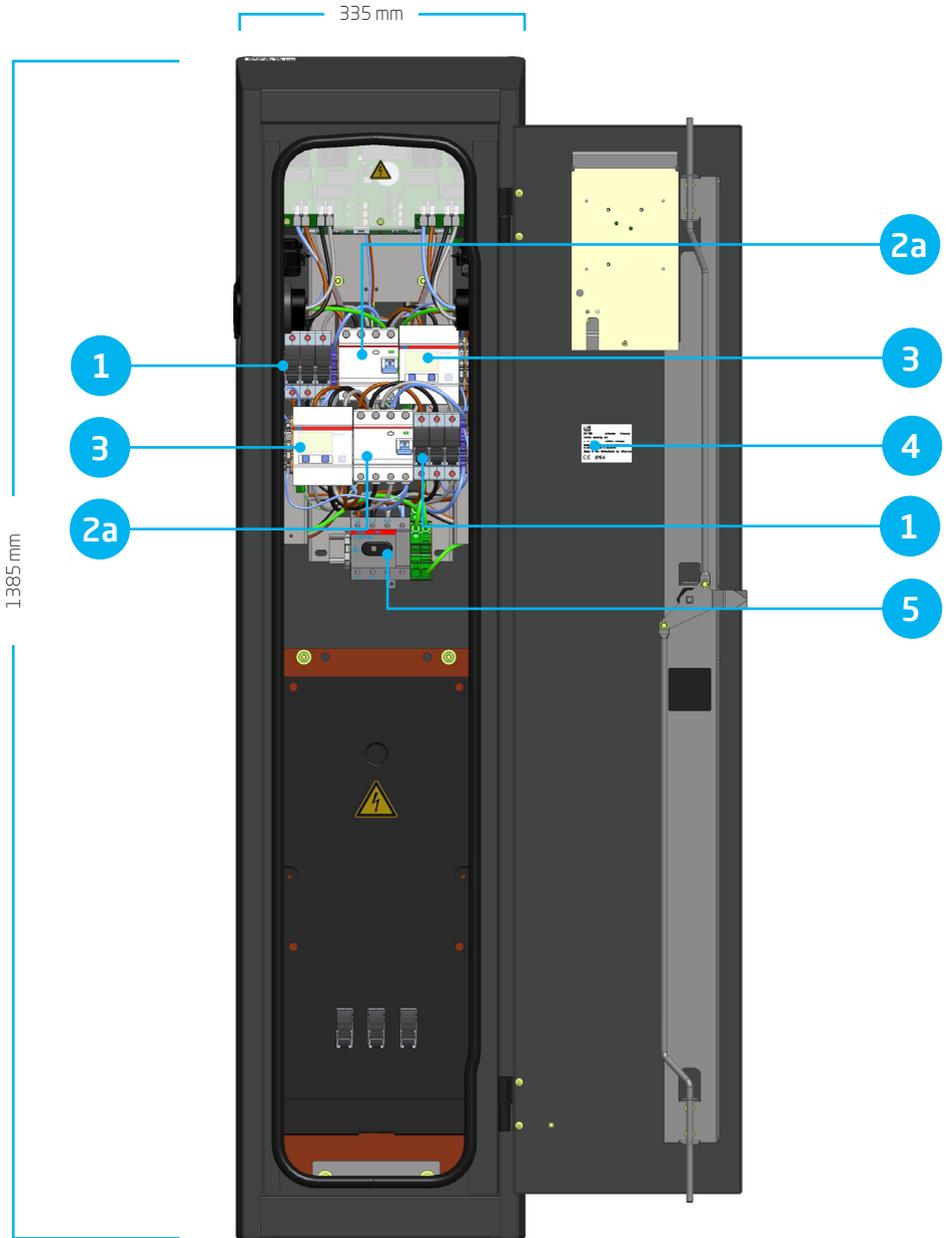
—  
Installation / User Manual  
Installatie- / Gebruikershandleiding  
Manuel d'installation et d'utilisation

# EXTERIOR VIEW / EXTERIEUR / VUE EXTÉRIEURE



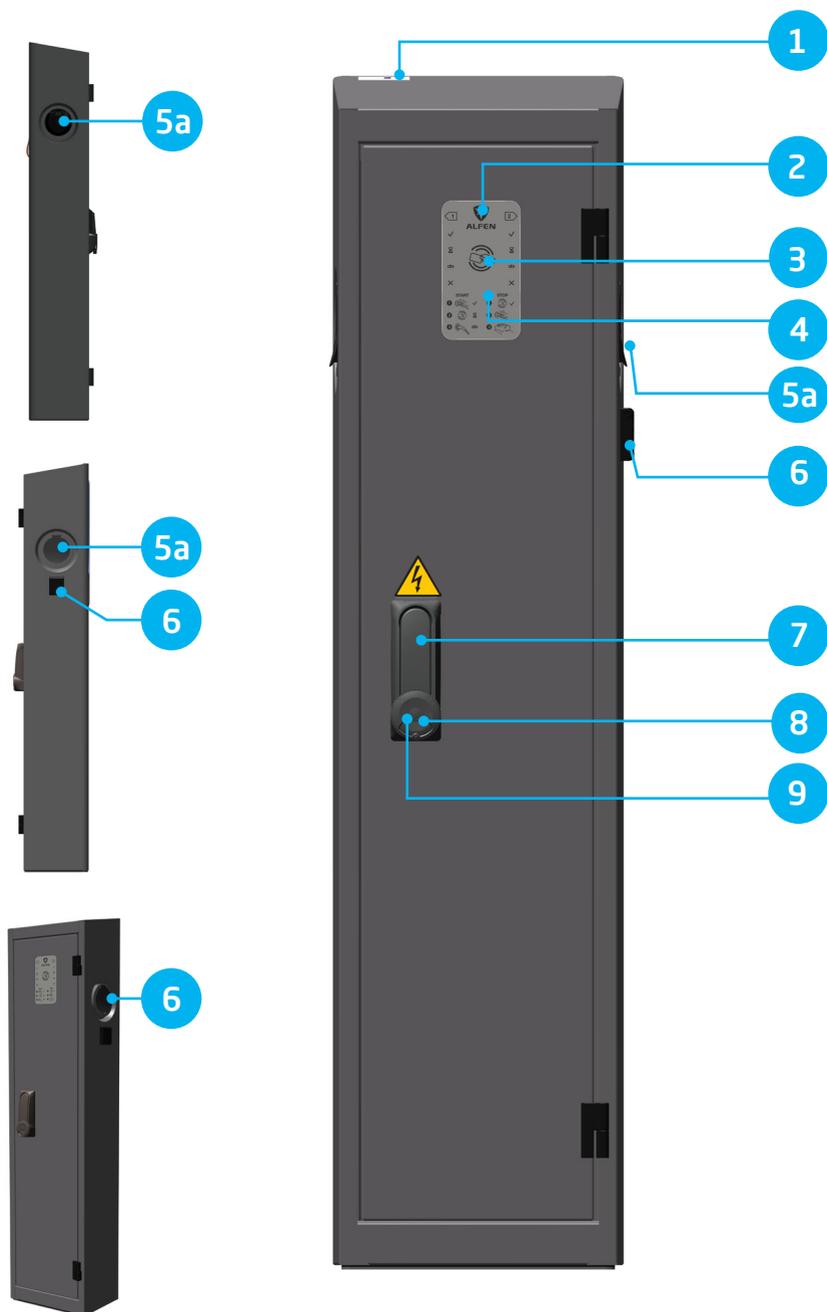
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# INTERIOR VIEW / INTERIEUR / VUE INTÉRIEURE



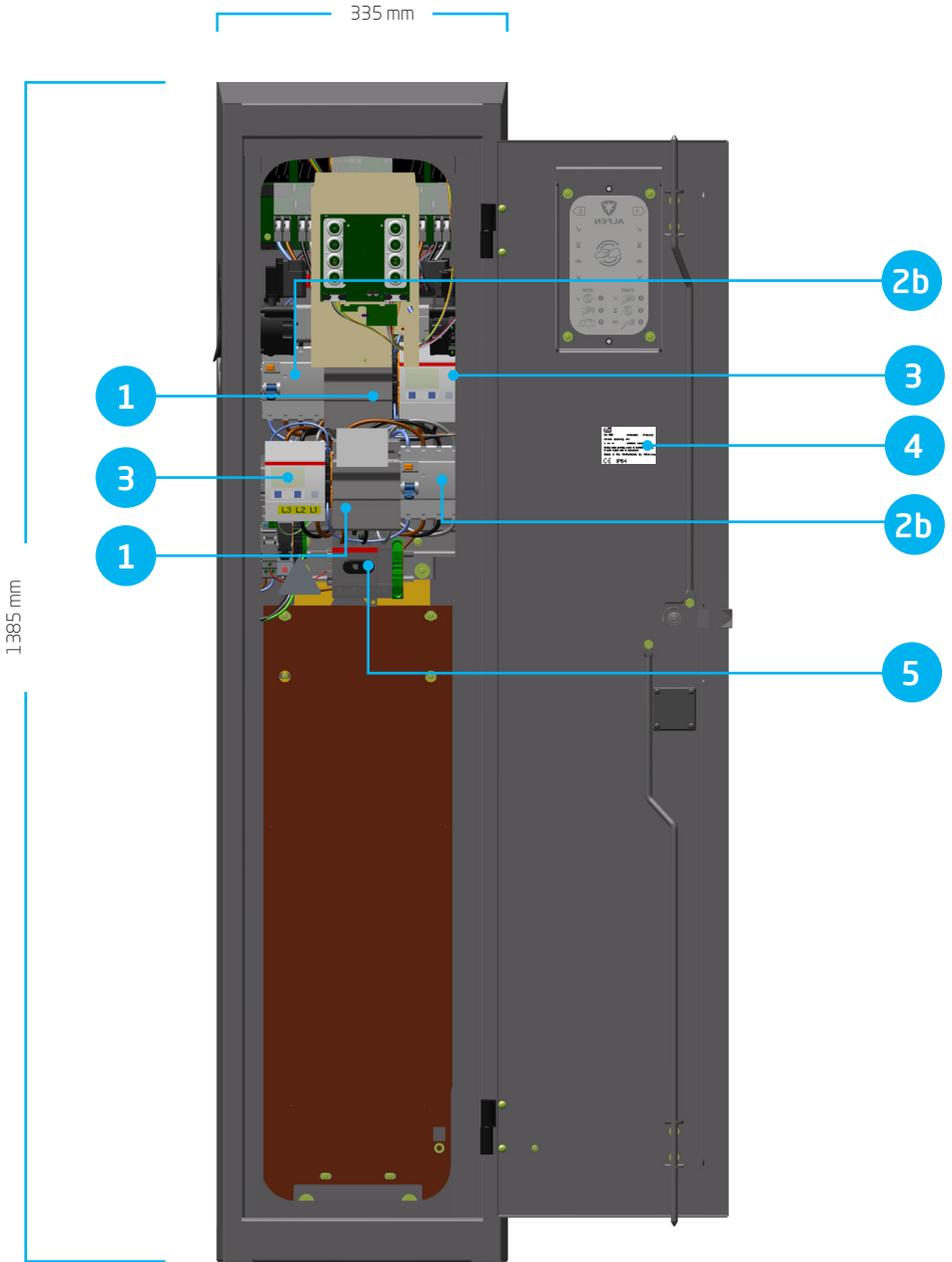
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# EXTERIOR VIEW / EXTERIEUR / VUE EXTÉRIEURE



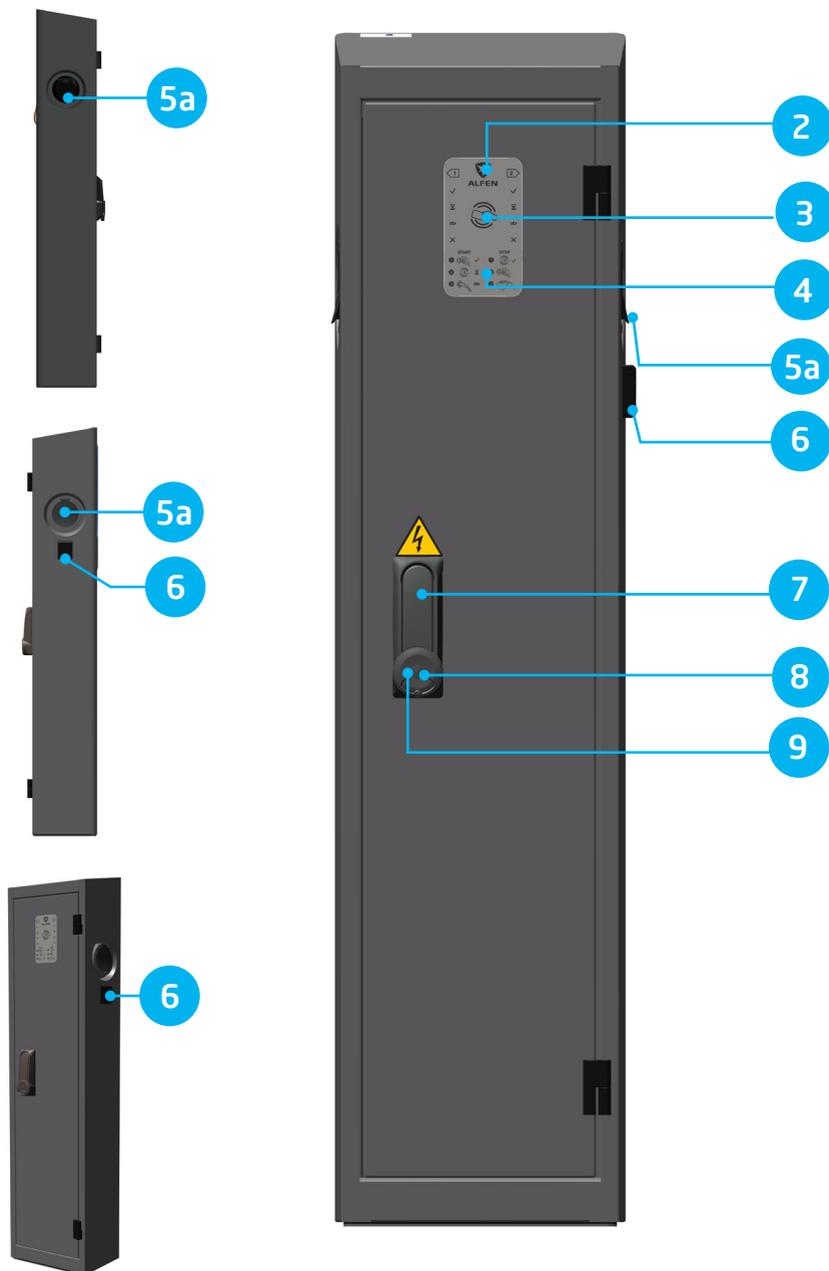
(ART. NO. 934452570)

# INTERIOR VIEW / INTERIEUR / VUE INTÉRIEURE



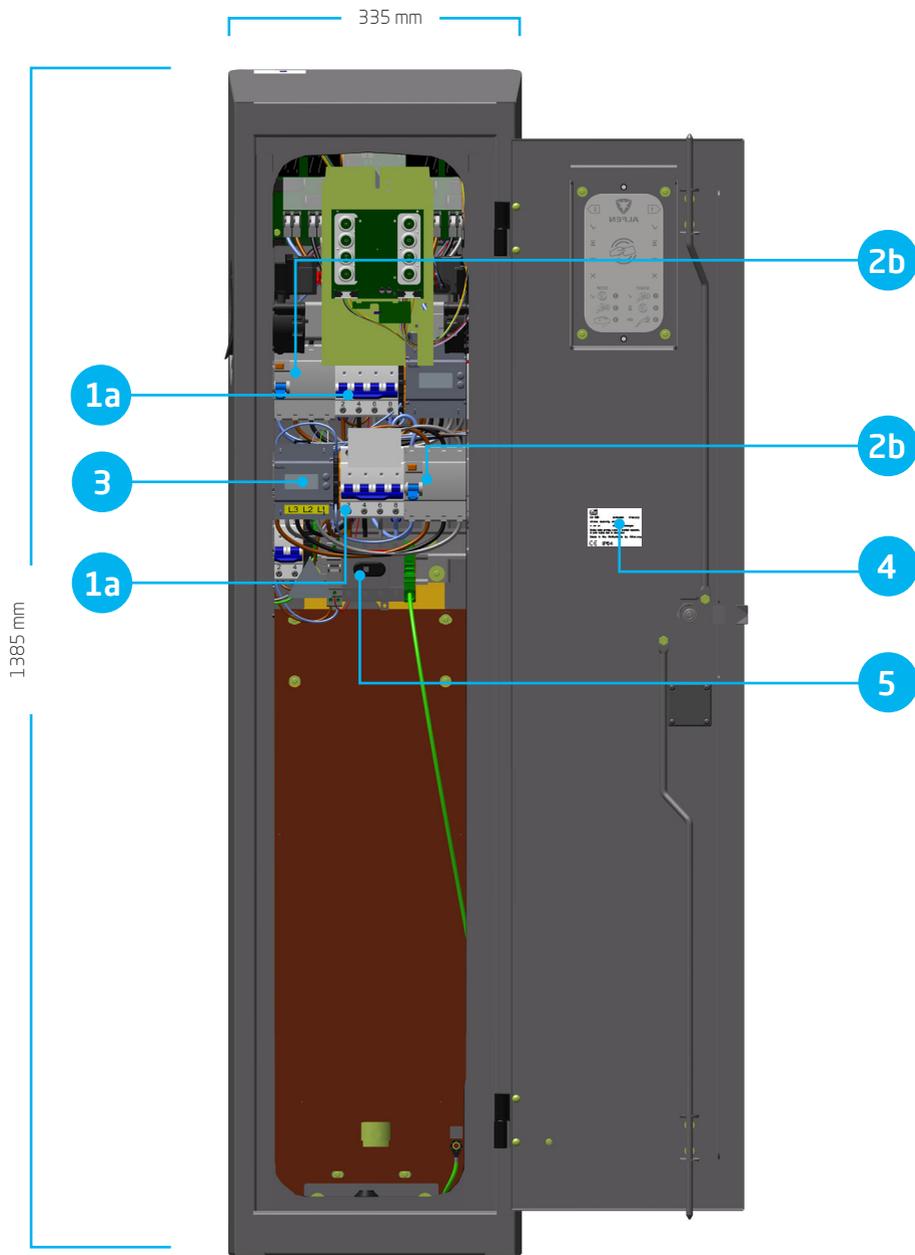
(ART. NO. 934452570)

# EXTERIOR VIEW / EXTERIEUR / VUE EXTÉRIEURE



(ART. NO. 934452571)

# INTERIOR VIEW / INTERIEUR / VUE INTÉRIEURE



(ART. NO. 934452571)



# Step-by-step Twin 4XL installation and commissioning

---

Thank you for purchasing this Alfen charging station for electric vehicles!

We advise you to carefully read the contents of this manual, to ensure a safe and proper installation and enable you to fully use all the advanced features of this product. Please store this manual for future use.

Although this manual was compiled with the utmost care, we always continue to further improve its contents and instructions. To download the most recent version of this manual, please visit: [alfen.com](http://alfen.com) or [knowledge.alfen.com](http://knowledge.alfen.com)

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# DECLARATION OF CONFORMITY

## Manufacturer:

Alfen ICU B.V.  
Hefbrugweg 28  
1332 AP Almere  
The Netherlands

declares that the **Alfen Twin 4XL** type charging stations to which this declaration applies, complies with the provisions of the following European directives:

1) Machinery directive 2014/35/EC

2) Low voltage directive 2014/35/EU

3) EMC directive 2014/30/EU

4) And the following harmonized standards:  
IEC 61851-1 ed. 3 (2017) - Electric vehicle conductive charging system -

General requirements, implemented at national level under:

- NL: NEN-EN-IEC 61851-1
- BE: NBN EN 61851-1
- UK: BS-EN 61851-1

All named products are labelled with the CE mark.

Almere, 28 April 2021



**M. Roeleveld, MSc**  
CEO

## 1.1 Purpose and intended audience

The Alfen Twin 4XL charging station is exclusively intended for charging electric vehicles, both in situations with a separate grid connection (for instance at home with a meter box), and in public situations (connected directly to the grid with the Grid Connection Box). Follow these instructions carefully to ensure proper usage of the charging station.

The installation, commissioning and maintenance may only be performed by a qualified technician (Alfen certified partner).

This qualified technician must meet the following requirements:

- Expertise of the relevant generic and specific rules regarding safety and incident prevention;
- Awareness of the relevant regulations regarding electricity;
- The ability to identify risks and avoid potential hazards;
- Awareness of these installation and operation instructions.

## 1.2 General safety



### **DANGER!**

The safety instructions are intended to ensure proper practical usage. If you do not comply with these safety regulations and instructions, you may expose yourself to the risk of electric shock, fire and/or severe injuries.

Using this product is expressly prohibited in the following situations:

- In the vicinity of explosive or highly flammable substances.
- If the product is located in or close to water.
- If the product or individual components are damaged.
- Usage by children or individuals not properly able to assess the risks associated with using this product.

In the following cases, Alfen ICU B.V. shall not be liable in any possible way for any kind of damages while all warranties on the product and its accessories become void:

- Non-compliance with these installation and operation instructions;
- Usage in ambient temperatures below -25 °C or above 40 °C;
- Improper use;
- Improper handling;

- Installation and/or usage by unqualified staff;
- Independently applied expansions or modifications of the product;
- Usage of replacement parts not manufactured or approved by Alfen.

More extensive safety information is available in the relevant sections of this document.

## 1.3 Disclaimer

This document has been subjected to rigorous technical review before being published. It is revised at regular intervals, and any modifications and amendments are included in the subsequent issues. The content of this document has been compiled for information purposes only. Although Alfen has made its best efforts to keep the document as precise and up-to-date as possible, Alfen shall not assume any liability for defects and damage which results from the use of the information contained herein. In no event will Alfen be liable for direct, indirect, special or consequential damages (incl. loss of profits) resulting from any errors or omissions in this manual. All obligations of Alfen are stated in the relevant contractual agreements. Alfen reserves the right to revise this document from time to time.

Any deviation to the Products including, but not limited to, customer-specific modifications (like customisation by placing stickers, SIM cards or the usage of different colours), hereafter referred to as 'Customisation', can alter the final product experience, product appearance, product quality and/or product lifespan. Alfen is not liable for any damage to, or caused by, the product (including applied Customisation) if this damage is caused by this applied Customisation. Contact your dealer for more information on Customisation versus the default product.

## 1.4 Copyright

Copyright © Alfen ICU B.V. 2022 All rights reserved. The disclosure, duplication, distribution and editing of this document, or utilization and communication of the content are not permitted, unless authorized in writing. All rights, including rights created by patent grant or registration of a utility model or a design, are reserved.

## 2. PRODUCT

### 2.1 The charging station

The overview on page 2-7 shows the standard product variants.

Legenda exterior view, page 2, 4 and 6

- ① Charging station identification number
- ② LED/RFID-interface
- ③ RFID reader
- ④ Quick start usage instructions
- ⑤ Type 2 socket
- ⑥ Type 2 socket shutter
- ⑦ Type E socket
- ⑧ Door lever
- ⑨ Cylinder for grid operator
- ⑩ Cylinder for end customer

Legenda interior view, page 3, 5 and 7)

- ① Fuses
- ② Circuit breaker (MCB)
- ③ Type A residual current device (RCD)
- ④ Type B residual current device (RCD)
- ⑤ Power meter
- ⑥ Identification label
- ⑦ Main switch

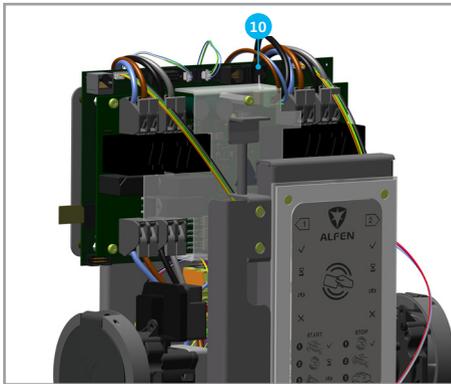


Figure 1: Location RJ45 connector

- ⑩ UTP (Ethernet) Connection RJ45

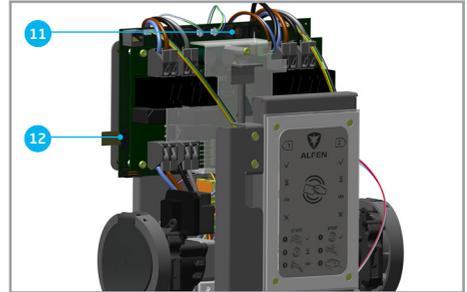


Figure 2: Location SIM card, P1 connection

- ⑪ P1 (Smart meter) Connection
- ⑫ SIM card holder

#### Identification label



Figure 3: Example of an identification label

The identification label specifies information such as the model, production date and serial number. This label is located on the inside of the charging station door. Please have your serial number available when contacting Alfen to enable quick support.

- ① Model name of the charging station consisting of the platform name and the last five digits of the article number: (NG920)-(52570, 52502, 52505 or 52550)
- ② Serial number, unique number issued by Alfen for this specific charging station
- ③ Production date of the charging station
- ④ Technical specifications of the charging station, such as the number of phases, maximum charging current and voltage
- ⑤ Article number of the charging station

## 2.2 Status indications on the interface

The Alfen Twin 4XL uses an interface equipped with LEDs to provide status indications of the charging station, and inform the user about starting and stopping the charging process.

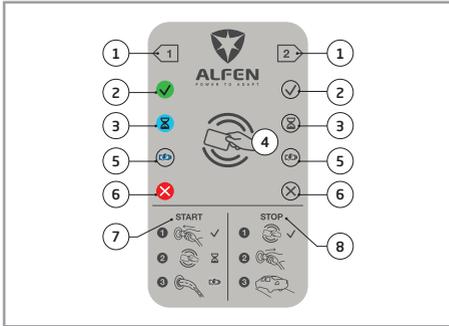


Figure 4: Display of the Alfen Twin 4XL during a charging session (charge point on the left in use)

### Status and information interface;

The charging station informs the user about the actual status of the charging station and provides the user with feedback about completed actions. The following information is available:

- ① Socket side indication
- ② Charge card accepted, cable connected
- ③ Communicating with vehicle, or charging completed
- ④ RFID-reader
- ⑤ Charging session active
- ⑥ Error
- ⑦ User steps to start the charging process
- ⑧ User steps to stop the charging process



Charge card accepted, cable connected



Communicating with vehicle, or charging completed



Active charging transaction

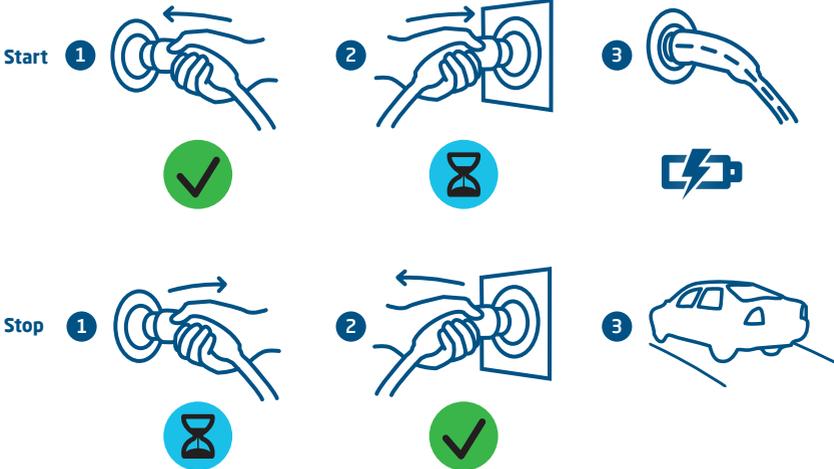


Error

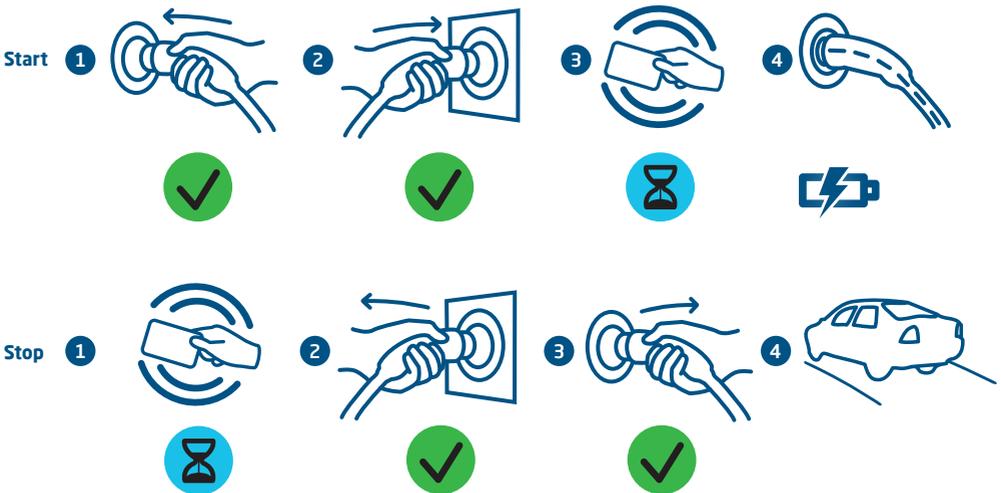
## 2. PRODUCT

### 2.3 Using the charging station

Plug & Charge – General authorization without charge card



RFID – Charging station with user authorization



#### REMARK

- The type E socket and type 2 shutter socket on the right side of the charging station cannot be used simultaneously.
- Switching between the sockets is not possible during the charging process.
- When both sockets are occupied at the beginning of a charging process, the type 2 shutter socket for EV charging will always take priority over the type E socket.

## 2.4 Technical specifications Alfen Twin 4XL

### 2.4.1 Model overview

#### Variants

| Model name  | Art. no.  | OCPP chargePointModel |
|---|-----------|-----------------------|
| 2 x type 2 socket shutter,<br>3-phase, max. input current 64A per phase,<br>type B RCD        | 934452570 | NG920-52570           |
| 2 x type 2 socket shutter,<br>3-phase, max. input current 64A per phase,<br>type B RCD        | 934452571 | NG920-52571           |
| 2 x type 2 socket, 3-phase, max. input current 64A<br>per phase, type A RCD, 6mA DC detection | 934452502 | NG920-52502           |
| 2 x type 2 socket, 1-phase, max. input current 64A<br>per phase, type A RCD, 6mA DC detection | 934452505 | NG920-52505           |
| 2 x type 2 socket shutter,<br>3-phase, max. input current 64A per phase,<br>type B RCD        | 934452550 | NG920-52550           |
| Packing unit (PU)   | 1 piece   |                       |

### 2.4.2 Specifications for type E socket

|                                  |   |
|----------------------------------|---|
| Number of outlets                | 1 type E socket available (right side)                  |
| Socket type                      | Type E socket, conform IEC 60884-1, CEE7/5, NF C 61-314 |
| Charging mode                    | Mode 2  |
| Nominal output voltage (+/- 10%) | 230VAC, 1-phase   |
| Nominal current                  | Max. 16A  |
| Nominal power                    | Max. 3.6 kW, 1-phase                                    |

## 2. PRODUCT

### 2.4.3 Input / power supply



#### NOTICE!

Your installation must comply with the standards and regulations of the location (country) where it is located. The tables below are advisory and based on proper practical functioning of the charging stations; provided that all prerequisites are met.

Printing errors expressly reserved.

|  |  |
|--|--|
| Input: minimum advised cable diameters (based on assumed max. 50 m cable length) | 11 kW charging, 16 A selected per phase: 5 x 4 mm <sup>2</sup> |
|  | 22 kW charging, 32 A selected per phase: 5 x 6 mm <sup>2</sup> |

|                       |                               |
|-----------------------|-------------------------------|
| Nominal input voltage | • $V_{L1-N}$ : 230V (+/-10%)  |
|                       | • $V_{L2-N}$ : 230V (+/-10%)  |
|                       | • $V_{L3-N}$ : 230V (+/-10%)  |
|                       | • $V_{L1-L2}$ : 400V (+/-10%) |
|                       | • $V_{L1-L3}$ : 400V (+/-10%) |
|                       | • $V_{L2-L3}$ : 400V (+/-10%) |
|                       | • $V_{PE-N}$ : $\approx$ 0V   |

|                   |       |
|-------------------|-------|
| Nominal frequency | 50 Hz |
|-------------------|-------|

|           |  |
|-----------|--|
| Grounding | TN system: PE cable  |
|           | TT system: separately installed grounding electrode < 100 Ohm spreading resistance |
|           | IT system: connected to a shared reference (common earth) with other metal parts   |

|                      |   |
|----------------------|---|
| Connection terminals | Strain relief, clamping range for cable thicknesses (11 mm - 29 mm) |
|                      | Cable grommets base plate range 13 mm - 34 mm                       |
|                      | Range cable clamps: max. 16 mm <sup>2</sup> per wire                |

|             |  |
|-------------|--|
| Main switch | 4 pole, 80 A, 400 V  |
|             | Cable clamps on main switch, range:                                  |
|             | - 16 mm <sup>2</sup> per wire: solid (VD) wire                       |
|             | - Max. 6 mm <sup>2</sup> per wire: strandes (VDS) wire with ferrules |

### 2.4.4 Output

|         |                               |
|---------|-------------------------------|
| Sockets | in accordance with IEC62196-2 |
|---------|-------------------------------|

|                |                 |
|----------------|-----------------|
| Output voltage | 400 V (3x230 V) |
|----------------|-----------------|

|                       |                |
|-----------------------|----------------|
| Max. charging current | 64 A per phase |
|-----------------------|----------------|

### 2.4.5 Protection / integrated components

|              |               |
|--------------|---------------|
| Energy meter | MID-certified |
|--------------|---------------|

|                       |                                     |
|-----------------------|-------------------------------------|
| Power switching relay | Integrated, simultaneous activation |
|-----------------------|-------------------------------------|

|                             |  |
|-----------------------------|--|
| Residual current protection | Optional: Residual Current Device (RCD): 100mA S (Selective), type B, 4P<br>Rating: 22kW charging: 80A |
|-----------------------------|--|

|                        |                                      |
|------------------------|--------------------------------------|
| Overcurrent protection | Integrated in firmware, shutdown at: |
|                        | 105% after 1,200 seconds;            |
|                        | 112% after 100 seconds;              |
|                        | 120% after 5 seconds;                |
|                        | 150% after 2 seconds                 |

|                          |                             |                            |
|--------------------------|-----------------------------|----------------------------|
| Short-circuit protection | 934452570                   | 934452571, 934452502       |
|                          | per outlet: fuses 3x 40A gG | per outlet: MCB 40A Char C |

The charging station is equipped with a 6mA detection circuit per socket. The charging current is interrupted if a DC leakage current of 6mA or more is detected. After 5 minutes, the charging current will be switched back on. If the 6mA DC leakage current is detected again, the station will interrupt the charging current again.

This protocol is repeated up to 3 times while the charging transaction remains active, after which the transaction will be permanently terminated. If the charging cable is reconnected, the charging station will restart this cycle.

#### 2.4.6 Charging and access

|                                     |  |
|-------------------------------------|--|
| Controllers                         | NG920  |
| Vehicle communication               | Mode 3 in accordance with IEC 61851-1 ed. 3 (2017)                           |
| Status indication                   | User interface equipped with LEDs  |
| Card reader                         | RFID (NFC) ISO/IEC 14443A/B, Mifare 13,56 MHz, DESFire                       |
| Internet / networking possibilities | GPRS (2G),<br>LTE CAT M1 (4G)<br>Ethernet/ LAN                               |
| Communication protocol              | OCPP 1.5 (JSON)<br>OCPP 1.6 (JSON) 2nd edition, certified<br>OCPP 2.0 (JSON) |
| Back-end connection                 | ICU Connect (optional) or other backoffice management system (upon request)  |
| Communication with Smart Meter      | DSMR 4.0 and higher via P1 port (R11) (934452502)                            |

#### 2.4.7 Operating conditions

|                           |                 |
|---------------------------|-----------------|
| Operating temperature     | -25°C to 40°C   |
| Relative humidity         | 5 % to 95 %     |
| Protection class          | I               |
| Protection level (casing) | IP54            |
| IK protection             | IK10            |
| Stand-by consumption      | Approx. 9 - 12W |



#### NOTICE!

The mentioned operating temperature assumes the **ambient temperature** of a product delivered in the standard casing color RAL7043. Direct exposure to sunlight may have an adverse effect on the temperature range.

The temperatures mentioned in the table apply to the ambient temperature for the product, assuming the standard casing color: RAL7043. Other (darker) colors may have an adverse effect on the operating temperature of the product. If the product is exposed to lower or higher temperatures, continuous operation cannot be guaranteed. In case of higher temperatures, the charging station will automatically decrease the charging capacity to stabilize

the internal temperature. This prevents transactions from being paused unexpectedly.

If the product is exposed to direct sunlight, it may occur that the automatic temperature management is configured below the maximum ambient temperature.

## 2. PRODUCT

### 2.4.8 Casing

|                        |  |
|------------------------|--|
| Type                   | Charging column  |
| Mounting options       | Directly on solid underground or on optional metal or concrete base  |
| Material (casing)      | Cold-rolled stainless steel 304  |
| Color (casing)         | RAL 7043 (Traffic Grey B)  |
| Locking                | Lockable lever with space for two cylinder locks (not included)<br>Standard master key included for door operating |
| Dimensions (H x W x D) |  |
| Casing                 | 1,385 x 335 x 220 mm   |
| Packaging              | 1,400 x 350 x 300 mm   |
| Weight                 |  |
| Casing                 | Approx. 40 kg  |
| Packaging              | Approx. 2.5 kg   |

### 2.5 Optional factory settings

| Factory settings                                  | Options  |
|---|--|
| Authorisation                                     | Plug & Charge<br>RFID *  |
| Maximum available charging current per socket     | 20 A<br>32 A *   |
| Smart charging options                            | Off<br>Standard load balancing *   |
| User availability if temporarily offline          | Accept all RFID cards<br>Only cards registered in the database<br>Not available                |
| Behaviour if plug is disconnected on vehicle side | Terminate transaction and release plug<br>Pause charging session until plug is reconnected     |
| Backoffice management system                      | Stand alone<br>ICU Connect *<br>Various backoffice management systems available upon request * |
| Communication via *                               | Autodetect<br>GPRS<br>UTP/LAN  |

The settings marked with an asterisk \*) may incur additional costs. The default settings are always mentioned first.

## 2.6 Accessories

|                             |                        |
|-----------------------------|------------------------|
| <b>Concrete base</b>        | Art. 833829300-ICU     |
| Dimensions (H x W x D)      | 570 x 350 x 220 mm     |
| Weight                      | 42 kg                  |
| <b>Metal base</b>           | Art. no. 803828601-ICU |
| Dimensions (H x W x D))     | 598 x 204 x 300        |
| Weight                      | 7.8 kg                 |
| Packaging (H x W x D)       | 50 x 295 x 620         |
| <b>Additional RFID card</b> | Art. no. 203120010-ICU |

## 2.7 Scope of delivery

The package of the charging station contains:

- Alfen Twin 4XL
- Installation manual
- Assembly accessories
- RFID charge cards (depending on the selected options)

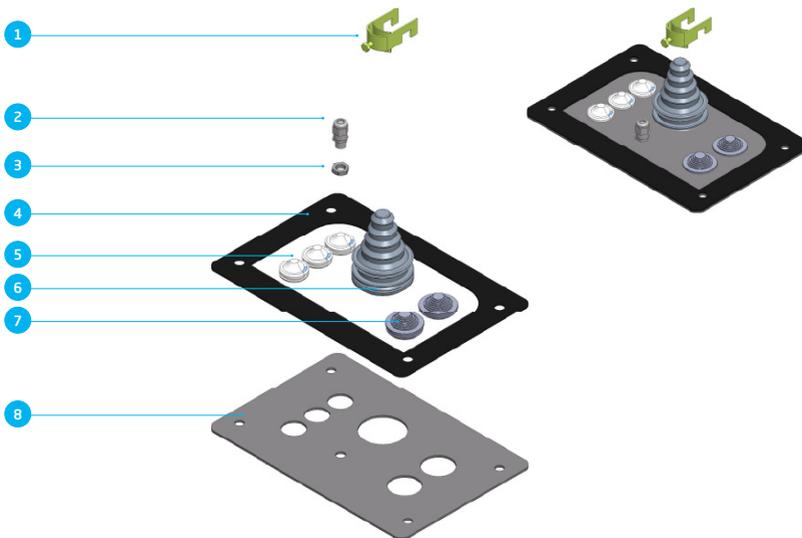


Figure 5: Bottom assembly overview

- ① 1x Cable clamp k24u
- ② 1x Wiska cable gland M12x1.5
- ③ 1x Connection nut 1.2 M12x1.5
- ④ 1x Gasket cable entry
- ⑤ 3x Grommet for ethernet cable
- ⑥ 1x Grommet for ground cable
- ⑦ 2x Grommet for Smart Charging Network
- ⑧ 1x Bottom gasket plate

## 3. ASSEMBLY AND CONNECTING

### 3.1 Installing and connecting

Carefully read these instructions prior to installing the charging station. Alfen ICU B.V. is not liable for any consequential damage caused by usage of this manual.

#### **DANGER!**

The electric system must be entirely disconnected from every power source prior to performing installation or maintenance work!

#### **REMARK**

The installation must be carried out by a qualified professional who has read this manual and works in compliance with the IEC 60364 standard. Neglecting this may lead to injuries or hazardous situations while working with electricity.

#### **REMARK**

A charging station must always be installed in a dedicated power circuit.

#### **DANGER!**

The charging station contains electric components that may still contain electrical charge after being disconnected. Wait at least 10 seconds after disconnection before commencing work.

#### **DANGER!**

Hazard of fatal injury if installed incorrectly! Non-compliance with the installation and environmental requirements may lead to hazardous situations while working with electricity.

### 3.2 Mounting and installation requirements

Refer to the table in paragraph 2.4.2 for the safety options and required cable thicknesses to create a proper connection.

#### **REMARK**

Wear personal protective equipment at all times when working. Make sure to follow the national and local standards and and regulations.

Ensure that the following requirements for installing the Alfen Twin 4XL are met

- The cable trajectory from the main distributor to the Alfen Twin 4XL must be protected against overcurrent with:
  - gG type fuses (or different pursuant to local standards and regulations) or a type B or C MCB
- The cable trajectory and the charging station are part of a TT/TN-S system; the charging station must be earthed

via the main distributor or earth electrode.

- Earthing the charging station is the responsibility of the owner.
- For each location it must be determined whether the earthing can be provided by the grid operator.
- The cable trajectory must be installed in compliance with the usual locally applying professional standards.

#### **REMARK**

The conditions at the specific location may influence the installation requirements.

#### **REMARK**

The system and cables must be installed based on the maximum charging current on the input(s) of the charging station. This must assume a continuous load (max. simultaneity).

The cable diameters mentioned in this manual are indicative. The technician remains responsible for determining the correct cable diameter and compliance with the applicable standards and regulations.

When selecting an installation location, make sure the following requirements are met:

- Never install in a potentially explosive atmosphere;
- Never install in areas prone to flooding without implementing compensating measures;
- Always fully comply with local technical requirements and safety regulations;
- The installation site must have a levelled and solid underground;
- Maximum atmospheric humidity of 95%;
- Ambient temperature of -25 °C to 40 °C;
- Temperature difference within 24 hours < 35 °C;
- Ensure that the charging station is located in such a way that users can use their charging cable (approx. 5 meters length) without tension being applied on the cable;
- Prevent road users from being able to drive over the cable;
- Prevents pedestrians from being able to trip over the cable.

### 3.3 Mechanical installation

Use the following tools and materials to install the Charging station:

- Spirit level
- Spade or excavator
- Utility knife
- Screwdriver for a terminal block
- Wire stripper
- Ratchet set/open-end wrenches

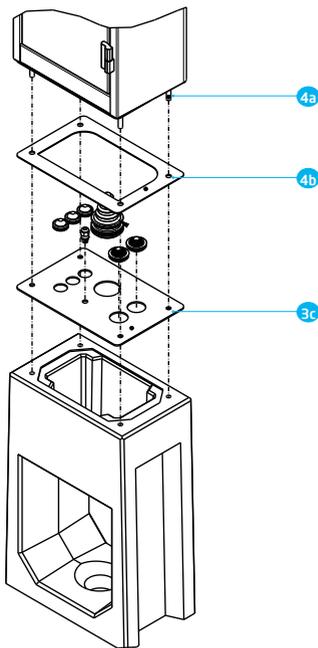


Figure 6: Concrete base and installation steps (3c, 4a, 4b)



### 3.3.1 Preparing the charging station

1. Verify the content of the packaging based on the required parts
  - a. On the door: The charging station is equipped with a lock with a lever suitable for two locks (type euro profile half-cylinder 17mm).
    - Left lock is for: **Owner of the charging station**
    - Right lock is for: **Grid operator**
  - b. Remove the protection from the lock.
  - c. The charging station may have one, two or no cylinder lock(s);
  - d. Open the lock with the included key(s) or the included master key if no cylinders were placed;
  - e. Lever can be pulled outward;
  - f. Rotate the lever counterclockwise to open the door

### 3.3.2 Installing the charging station

2. Foundation for mounting on the ground (with concrete or metal base):
  - a. Excavate a hole of 50x50 cm with a 55cm depth below the surface level and level the hole horizontally.

- b. Insert the concrete or metal base and level it.
  - c. Place the cable glands and cable grommets supplied on the gasket plate, then place it into the bottom of the charging station.
  - d. Apply an earth electrode or grounding pin depending on the locally applicable standards and regulations.
3. Inserting the mains cable and earth cable:
    - a. Guide the mains cable through the pipe sleeve, concrete base and grommet in the gasket plate. Refer to the specifications for appropriate cable diameters.
    - b. The excess length from the upper side of the base must be at least 25cm. Due to the installation of the strain relief, it is advised not to cut the cable before the charging station is mounted on the base. If the charging station is not equipped with a Grid Connection Box (934452502), the system must be directly connected to the main switch. This requires a greater excess length of the supply cable. Measure this distance before proceeding.
    - c. Guide the earth cable, originating at the earth

## 3. ASSEMBLY AND CONNECTING

electrode, through the base and the cable gland into the gasket plate.

4. Mounting the charging station on the base
  - a. Insert the 4 threaded rods M10x10 mm into the openings on the base.
  - b. Apply the gasket over the threaded rods and the gasket plate.
  - c. Tilt the charging station, which has been readied on its back, over the base, onto the base over the threaded rods and over the supply cable and earth cable.
  - d. Cut the cable grommet to fit, so that it firmly grips the supply cable and guide the supply cable through the charging station. Pull the supply cable to the exterior of the charging station to install the strain relief (see figure 5).
  - e. Guide the supply cable, after having installed the strain relief, back into the charging station / concrete base, so that the prescribed 25 cm cable length remains in the charging station.
  - f. Attach the charging station with the supplied 4 M10 nuts including washers and v-rings.
  - g. Mount the charging unit with 4 x stud bolts M10x10 mm onto the base.

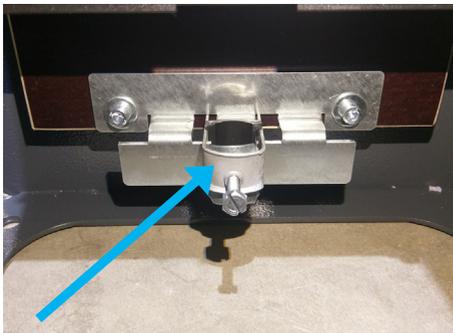


Figure 7: Example of a strain relief

### 3.4 Electrical installation



#### WARNING

Read and comply with all safety instructions in this manual!



#### DANGER!

The electric system must be completely disconnected from every power source prior to carrying out installation and maintenance work. Always wait 10 seconds after disconnecting from an energy source before proceeding.

1. Remove the shield of the supply cable with a utility knife and remove the sheath of the separate wires with a wire stripper;
- 
- #### WARNING
- Always connect an earth connector first
2. The charging station must be properly earthed. Connect the earth electrode first. An earth busbar is installed at the right bottom of the charging station to which the earth electrode can be connected;
  3. The grid operator's earth sheath / earth wire may only be regarded as an earthing solution after having obtained written permission of the grid operator to do so;
  4. Ensure that the earth spreading resistance is below 100 Ohm;
  5. Ensure that the main switch is in the OFF (0)-position.
  6. Remove the fuses;
  7. Connect the phase wires to:
    - i. The MCBs or fuse holders in the grid connection box of the charging station (if a grid connection box is included in the delivery). PE on separate rail;
    - ii. The main switch of the charging station (if a grid connection box is not delivered). PE on separate rail;
  8. A clamping bracket is required (see figure 5) for strain relief;
  9. Put the main switch and the residual current device into the ON (1) position;
  10. If a transparent cover cap was delivered for the internal components, install it with the accompanying plastic bolts;
  11. Close the door and the lock and make sure it is properly locked.

## 4. COMMISSIONING THE CHARGING STATION



### NOTICE!

Ensure that the cables do not become trapped while closing the door of the charging station.



### NOTICE!

Absolutely no gaps may be present between individual parts of the casing. This is detrimental to moisture and dust protection, and has an adverse effect on the lifecycle of your charging station.

#### 4.1 Safety instructions prior to usage

Follow these safety instructions prior to commissioning your charging station:

1. Ensure that your charging station is properly connected to the power supply and the foundation as prescribed in this manual;
2. Ensure that the distribution of the electricity supply is separately protected by an appropriate circuit breaker (934452502: MCB or fuses);
3. Ensure that the charging station is installed in compliance with this manual.
4. Ensure that the casing always remains closed during regular usage.

#### 4.2 Commissioning

1. Ensure that the RCDs and MCBs are switched on and all fuses are in place.
2. Put the main switch into the ON (1) position. You can use a special wrench to simplify this switching.
3. Close the Charging station by clicking the door into the lock.

Turn on the power at the power cable if possible. The charging station will now run a self-diagnostic. During this process, the following actions are performed:

1. The sockets are tested individually, each side follows the following sequence:
  - Testing locking (locking and unlocking)
  - Internal relays are tested, switching is audible
2. The LED interface flashes briefly;
3. The red crosses flash twice;
4. The Alfen Twin 4XL is now ready to use.  
If the charging station is configured to connect with a backoffice management system, this will take place automatically and directly.
5. The charging station may be configured further if desired. Use the Service Installer software application to gain access.
6. Did you opt to have your charging station configured with a smart charging feature? Then please verify

these settings with the Service Installer, to optimally configure your charging station for local requirements.

### REMARK

For more information about the Service Installer, please visit our website [alfen.com](http://alfen.com) to download the latest version.

## 5. CONNECTIVITY

### 5.1 Backoffice management systems

Your Alfen charging station is an intelligent solution that is able to communicate with an backoffice management system over the internet. Backoffice management systems functionalities include remote monitoring of the energy consumption of individual users, remote management of the charging process and simplified maintenance of your charging station.

If, during the purchase of your charging station, you opted for additional services with a (backoffice) partner or Alfen ICU B.V. (the ICU EZ services), your charging station has been preconfigured with default factory settings for the backoffice you selected. The internet connection is established via GPRS or a UTP (Ethernet) cable connection. If you opted for a GPRS (SIM card) connection, your charging station is already equipped with its SIM card and will automatically connect once your charging station is commissioned. If your SIM card holder does not contain a SIM card, please contact your backoffice provider or Alfen.

The following section explains how to connect your charging station to the internet with GPRS (SIM card) or a UTP (Ethernet) cable.

### 5.2 Establishing a connection

#### 5.2.1 Wireless connection

To establish a wireless connection, the charging station must be equipped with a GPRS-capable SIM card. Furthermore, correct settings must be configured in order to connect with the preferred backoffice management system. Various options (shortcuts) are available for this purpose in the Service Installer. With these shortcuts, it is easy to select the preferred system with the corresponding settings.

#### REMARK

A connection with a backoffice management system can only be established if you made arrangements with the supplier of this system to start your services. Services delivered by third parties are not part of the scope of delivery of Alfen.

If, during the order process, you opted to use ICU Connect, the charging station is already equipped with a SIM card. The Charging station will automatically connect with ICU Connect during the commissioning process.

If you opted for another backoffice management system while placing your order, it might be required to install the SIM card yourself.

#### 5.2.2 UTP (Ethernet) connection

##### Which type of cable is required?

A CAT5 UTP cable is the minimum requirement in order to be able to connect with the internet. This cable can process speeds of up to 100 Mbps.

##### Installation

1. Connect the UTP cable to your router;
2. Turn your charging station off by putting the main switch into the OFF (0) position;
3. Connect the UTP cable with the Ethernet port;
4. Turn your charging station back on by putting the main switch on the ON (1) position;
5. To enable communication between your charging station and ICU EZ over a UTP Ethernet connection, it may be required to modify your network settings if security settings are configured.  
The information required to access ICU EZ over your network is displayed below:

`ws://icconnect.nl:9090`

`wss://icconnect.nl:9089 (TLS)`

`wss://icconnect.nl:9088 (TLS + client certificates)`

It might also be required to specify a MAC address. This is registered on the inspection report of your charging station. Please contact Alfen to receive a copy of this report.

#### REMARK

Ensure that your network settings allow for establishing a connection to the Alfen servers over a secured FTP connection. This enables the exchange of software updates and diagnostics.

### 5.3 Registering your ICU EZ account

If you wish to subscribe to the ICU EZ backoffice services, please visit the following link to register:

<https://alfen.com/en/management-charging-stations/registration-ez-managementsystem>

#### REMARK

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You can register your user account for ICU EZ once you have received your charging station. During the registration process, the information of your first charging station is required (identification label or order confirmation). This information is used to recognize you. Once your account is created, Alfen will send you your login information.

Did you forget to register while ordering ICU EZ? No problem. If you opted to have your charging station configured for ICU EZ, your charging station is already registered and active in the backoffice management system. All transactions and other past events are stored and are available in your overview.

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1. Complete the registration form on the Alfen website;
2. Mention the numbers on the back of the charge cards delivered to you in the 'Remarks' field;
3. Click on 'Send';
4. Alfen will process your registration and will activate your account. Your login details will be sent to you shortly;
5. Use these login details to log into your account at: [alfen.com](http://alfen.com)
6. Once logged in, you can directly monitor your charging station and its status.

### 5.4 Registering your charging station within your own backoffice management system

If you want to use your own backoffice, or one delivered by a third party, please ensure a correct registration of the charging station model.

Every Alfen Twin 4XL model has its own so called ChargePoint-Model that is automatically sent along during registration pursuant to OCPP specifications. This consists of a platform identification, combined with a unique product identification:

- 934452502
- With Alfen NG920 platform: NG920-52502



# Contact

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