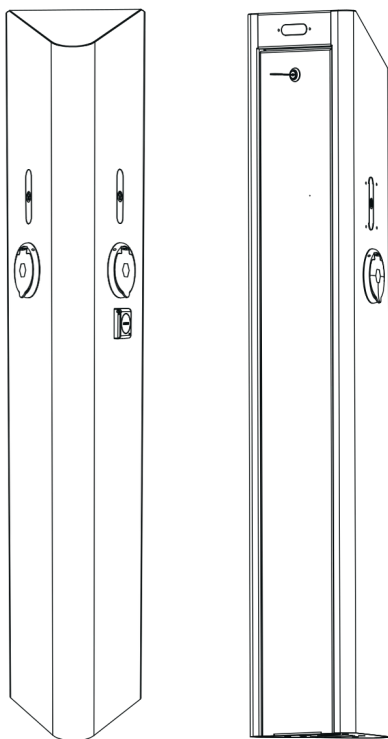


PRO 400 Charging Station

Installation manual



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1.SAFETY INSTRUCTIONS

1.1. Purpose

The purpose of the product is to charge electric vehicles. The product must be installed in accordance with applicable local legislation.

Safety instructions are provided below in order to ensure safe, long-term use of the product. Failure to comply with the instructions and general safety guidelines for electrical systems may lead to an electric shock, fire hazard, damage, malfunction, injury and/or death. Read the safety instructions in this document before installing and using the product.

Installation, commissioning, servicing and maintenance may only be performed by qualified personnel. A qualified person is someone who complies with all of the following:

- Has the skills and knowledge regarding the construction and operation of electrical equipment and its installation
- Is a qualified electrician
- Has knowledge of the applicable local legislation
- Has knowledge of installation and user instructions

1.2. Safety terminology

 DANGER	Danger texts provide important information to avoid situations with a high chance to cause severe malfunction, damage, injuries or death.
 WARNING	Warning texts provide important information to avoid situations with a significant chance to cause malfunction, damage, injuries or death.
 CAUTION	Caution texts provide important information to avoid situations that may cause some degree of malfunction, damage or injuries.
	This symbol indicates an electrical hazard which can lead to personal injury if the instructions are not followed.



DANGER

blink



- Only trained, qualified and authorized personnel may replace, repair and/or maintain the product.
- The product is connected to the mains electricity supply. That is why a voltage may appear on the input terminals even when the device is turned off. Make sure the upstream AC input breaker is OFF and 0V is measured at the input terminals.
- Do not have the product serviced by non-qualified personnel in order to avoid the risk of serious injury from electric shock or damage to the product. None of the product's parts are intended to be serviced by users. Do not attempt to disassemble, tamper with, or modify the product. If the product requires servicing, repair or relocation, contact a qualified electrician to perform these operations.
- Do not let the product be used by children, or individuals who cannot assess the risks associated with unintended product use. Children in the vicinity must be supervised by adults while the product is in use.
- Always make sure the product is not submerged in water, and is not located near water. Do not handle the product with wet hands, and make sure no liquid is sprayed on it or comes into contact with it. Store the charging cable in the socket to prevent unnecessary exposure to contamination or moisture. Handling the product or its components while conductive liquids are present may cause an electric shock with the risk of serious injury or death.
- Do not use an extension cable, adapter, or second cord set.
- Do not use the product if the input or output cables show any indication of damage.
- Do not use the product if the housing or the EV-connector is broken, cracked, opened, or shows signs of damage.
- Do not use the product at temperatures below -25°C or above 50°C.
- If an accident has occurred or a hazardous situation has developed with regard to the product, have a certified electrician immediately disconnect the product's electrical supply.



DANGER

Do not use or install the product in the vicinity of explosive, volatile, combustible or highly flammable substances. Note that some electric vehicles release hazardous or explosive gasses when charging, which may cause an explosion with the risk of serious injury or death. Refer to the vehicle's manual to check if this is the case, and follow the instructions it specifies before choosing the location of the product.



WARNING



- Do not use the product while the housing is opened or unlocked.
- The product must be grounded through a permanent wiring system or grounding conductor.
- Disconnect input power before installing, cleaning, removing or relocating the product.
- Avoid using a private power generator, adapters, conversion adapters or cord extensions with the product. The introduction of accessories not prescribed for the product may create technical incompatibilities that can cause malfunction or damage, and result in injury or death.

- Take care not to apply force or pressure to any part of the product or to damage it with sharp objects or impacts.
- Do not let the product and charging cable come into contact with heat sources. High temperatures may impair functionality, cause damage or cause hazards.
- Damage to the product may cause injury or death. Respect the product's operating parameters and technical specifications, and make sure damage is not inflicted or allowed to accumulate on the product. Do not use the product if it fails to operate normally or appears cracked, frayed, broken or otherwise damaged. If you suspect the product may have been damaged, have it checked by a qualified electrician as soon as possible.
- Use of the product may interfere with the proper functioning of medical or implantable electronic devices in the user, such as a pacemaker or defibrillator. The user should check with the manufacturer of such electronic devices whether electric charging may affect such a device before using the product.



CAUTION

- Installing and/or testing the product incorrectly may result in damage to the product and/or a connected vehicle's battery. Such damage is excluded from the vehicle and charging product's warranties.
 - The charging cable must be completely unwound and overlapping loops must be avoided before charging to prevent overheating, which may damage the product.
 - Do not put fingers or objects in the socket or any other exposed part of the product, as doing this may cause injury or damage.
 - Keep (electro)magnetic devices away from the product, as their use in the vicinity of the product may negatively affect the product's functionality, even to the point of causing damage to the product.
- Only transport and store the product in its original packaging.
- Do not subject the product to strong force, impact, pull, twist, tangle or drag and do not step on any part of the product. If the product is damaged in transport, while it was not transported in its original packaging, no damage liability can be accepted.
- Store the product in a dry environment and within the
- temperature range provided in the technical specifications.

3. PRODUCT SPECIFICATIONS

3.1 Use of the product

This product is only intended for charging cars via alternating current, following the mode 3 protocol according to IEC 61851-1.

3.2 Technical specifications

General	
Input (mains)	400VAC - 50Hz
Connections	Permanently connected
Output (to EV)	Voltage range 400 VAC
	Current range 0 - 32A
Mains type	3-phase (3P+N with PE)
Socket EU:	2 x Type 2
Socket FR:	2 x Type 2 with shutter + 1 x Type E outlet
Energy meter	MID kWh measurement for each socket
Mounting type	Stationary equipment / Ground mounted
Access	Equipment for locations with non-restricted access

Dimensions	
Width	290mm
Height	1500mm
Depth	245mm
Weight	35kg

Ambient	
Ambient temperature (in operation)	-25°C to +50°C
Ambient temperature (storage/transport)	-25°C to +70°C
Max. allowed density (in operation)	≤90% (non-condensing)
Humidity	10% to 95%

Ambient	
Dirt and water resistance	IP54
Impact resistance	IK10
Environmental conditions	Outdoor use

Technology	
Platform	Linux based java platform
Hardware and software based on proven design Logging, debugging port for troubleshooting Advanced remote monitoring Firmware local and remotely upgradable	

Communication	
Communication protocol	OCPP JSON 1.6
Connection Ethernet	RJ45, static IP or DHCP
Modem	4G with fallback to 2G (SIM card provided by CPO)
RFID	Multiprotocol, one for each charging point
LED	Status indication on each charging point

Protections	
Circuit breakers	40A C curve for each socket
Residual current circuit breaker	Type A 30mA for each socket
Temperature sensor	Integrated in circuit board
Tilted sensor	Integrated in circuit board
Leakage current protection	6mA DC leakage current detection on each T2 socket
Welding detection	via auxiliary contact on relay per socket
Protection class against electrical shock	Class I equipment

Certification
EN61851-1 (ed.3); EN62196-1; EN62196-2
CEM 2014/53/EU; RED 2014/53/EU; ROHS 2011/65/EU
NF EN 50 160; NF EN17186; EV Ready (French version only)

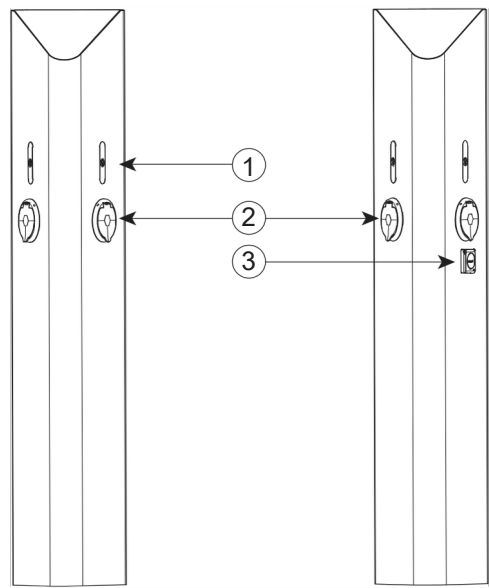
4.PRODUCT VERSIONS

There are two versions of the product: the general EU version and the French version. The product versions differ slightly based on regional technical requirements: the French version of the product contains an additional Type E socket as well as additional shunt protection, and the Type 2 sockets are equipped with shutters. These variations, however, do not affect the installation procedure.

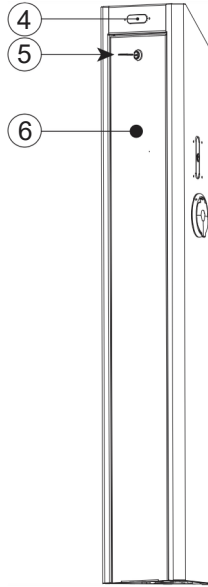
The specifications and procedures detailed in this manual apply to both product versions.

5.OVERVIEW OF COMPONENTS

5.1 Outside view

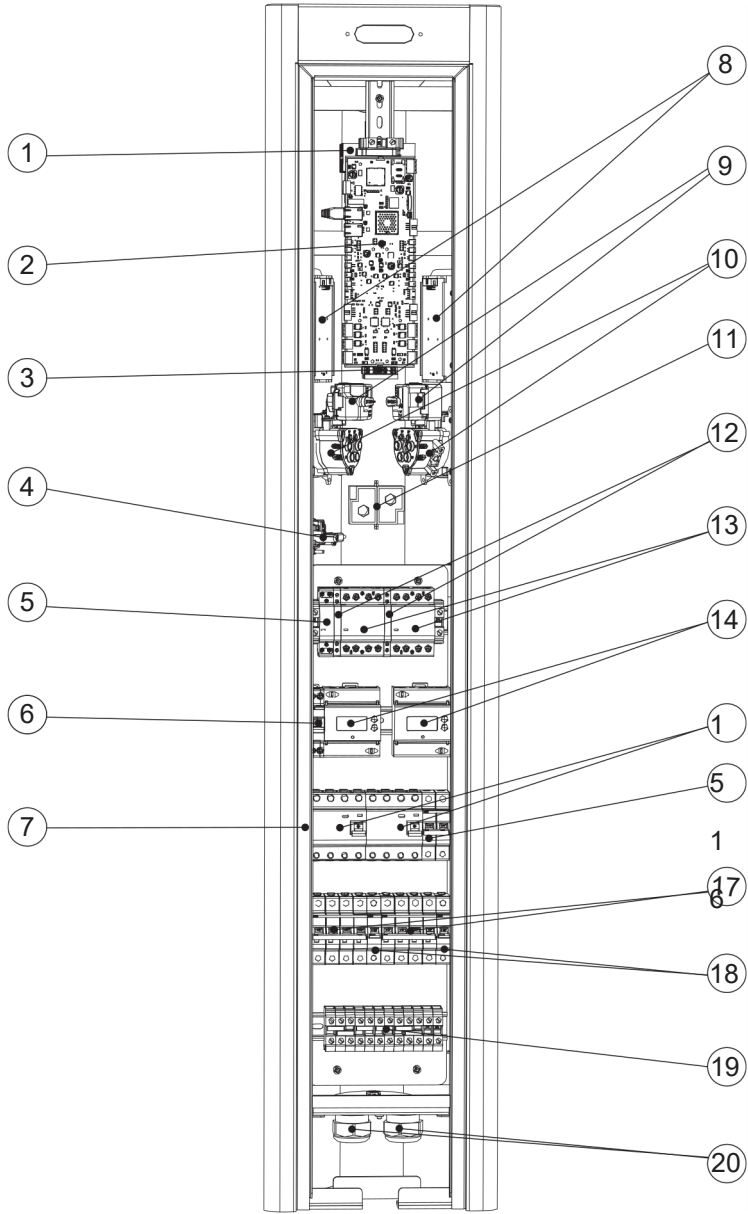


#	Component
1	LED indictator & RFID reader
2	Type 2 socket (with shutters in French version)
3	Type E socket (French version only)



#	Component
4	4G antenna
5	Service lock
6	Service door

5.2 Inside view



#	Component
1	12V DC Power Supply Unit
2	Circuit board
3	Vehicle detection connection point (optional)
4	Type E socket (French version only)
5	Type E relay (French version only)
6	Type E MCB (French version only)
7	Cable Gland signal cable
8	LED & RFID interface
9	Socket lock
10	Type 2 socket
11	6mA Dc detection
12	Welding detection contact
13	Relay
14	MID meter
15	Residual Current Circuit Breaker 30mA
16	6A Main Current Breaker
17	40A Main Current Breaker
18	Shunt protection (French version only)
19	Input terminals
20	Cable Gland input/output cable

6.TRANSPORTATION AND STORAGE

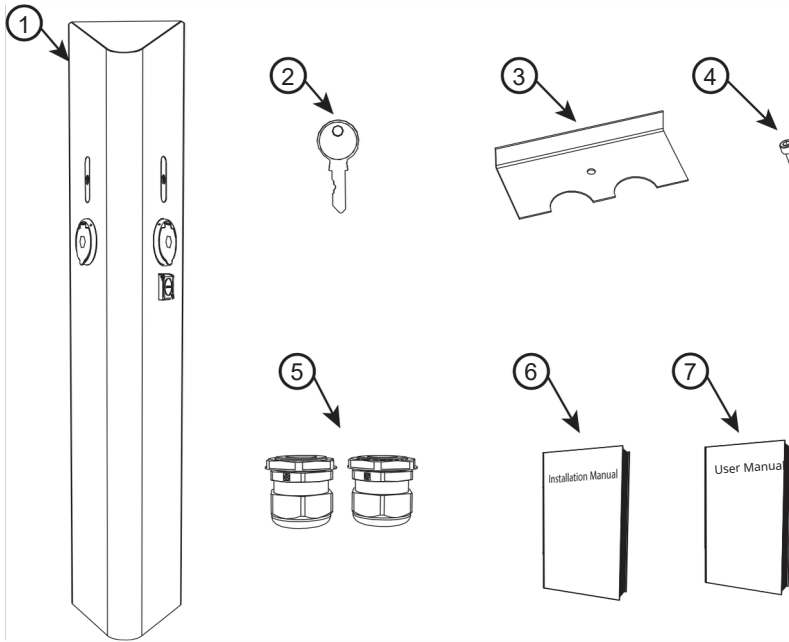
- The charging station must always be packed for transport in the original box, wrapped in a protective film.
- The charging station can be transported in a vertical (standing upright) or horizontal (lying down) position.
- Always store the charging station in the original box, in a dry space at a temperature between -20°C and +70°C.

7.INSTALLATION SUPPLIES

Not all the necessary tools for installation are delivered with the product.

Before you start, please check that all tools and components, required for an easy installation, are available.

7.1 Box content



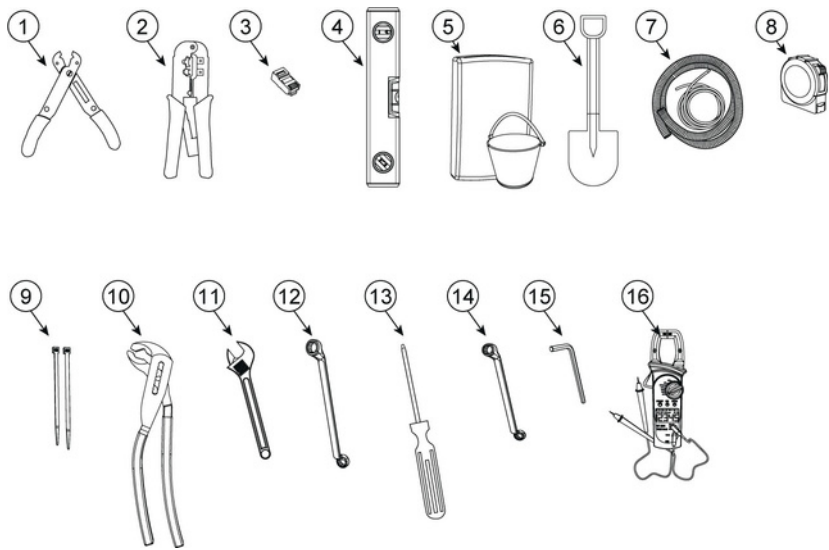
#	Description	Amount
1	Charger unit (EU version or French version) + service door + signal cable grommet + Pressure Compensation Element DAE M12 Grey + screws	x1 x1
2	Key for service lock	x1
3	Grommet holder plate	x1
4	Cylinder head screw DIN 912 M6x12 for grommet holder plate	x1
5	Grommet SKINTOP ST-M40x1.5	x2
6	Installation manual + SAT	x1
7	User manual	x1

7.2 Accessories

<i>Can be additionally purchased</i>
Anchor

<i>Compatible external tools</i>
French Meter (on/off peak)

7.3 Required tools



#	Description	Amount
1	Cable stripper	x1
2	Ethernet RJ45 cable crimper	x1
3	Ethernet connector RJ45 for cable crimping	x1
4	Spirit level tool	x1
5	Quick drying concrete and water (for anchor)	±50kg
6	Shovel (for anchor)	x1
7	Waiting tube and waiting cable	x1
8	Measuring device	x1
9	Tie wraps	x2
10	Water pump pliers (Grommets M40x1.5)	x1

#	Description	Amount
11	Spanner No. 17	x1
12	Wrench No. 17	x1
13	Flat screw driver (for connection terminal blocks)	x1
14	Wrench size 10mm (for PE on door - M6 Hexagon nut)	x1
15	Allen wrench size 5 (for M6x12 cylinder head)	x1
16	CP / EV tester (for SAT)	x1

8. INSTALLATION REQUIREMENTS

8.1 Installer specifications

Only authorized technicians should install and maintain the product. The technician should conform to the following qualifications.

- The technician should be experienced and have in-depth technical knowledge of electrical and electronic circuits;
- The technician should be aware of and conform to applicable safety measures as well as the parts of this manual that relate to the installation of the product;
- The technician should be aware of and comply with all applicable local, national and international laws and regulations;
- The technician should be capable of acknowledging the potential hazards of the product and take the necessary precautions to protect people and property from hazard damage.

8.2 General cable specifications

The product requires a proper power cord. An ethernet cable is recommended (not required) to connect the charging station to the internet. It is also possible to connect the charging station with the internet through 4G. The ethernet cable is not to be used underground unless through a holding tube or reinforced (STP) cable in order to prevent corrosion by moisture or rupture by ground shifts.

Insofar as is possible, the cables should already be present and ready to connect to the product at the start of the product installation procedure. Use of sheathed cables is recommended when running cables underground. Do note that the RJ45 connectors should be connected only after feeding the cable through the grommet into the product.

Please use shielded ethernet cable when installing near polluted EMI environments which can cause electrical noise on data cables.

8.3 Power cord specifications

The electrician should select the type and dimensions of the power cord and safety components as appropriate for the installation environment and situation, compliant with local regulations.

The power cord should be able to provide power continuously at maximum load for the charging station.

The charging station can deliver up to 44kW (2 x 22kW).

Consequently, the circuit of the incoming power cable must be protected by a circuit breaker of up to 63A or lower.

- Power cord thickness: Ø 10 – 22.5 mm.
- Power cord cross-section: 10 mm² or according to local legislations.

Isolate the power cable from the outer sheath over a length of at least 20cm.

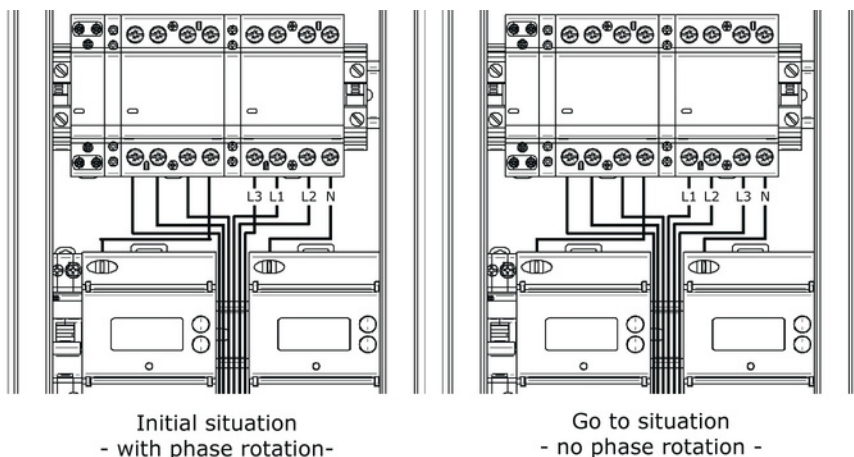
8.4 Grounding specifications

The charging station should be grounded in accordance with local regulations.

8.5 Required nominal input voltage

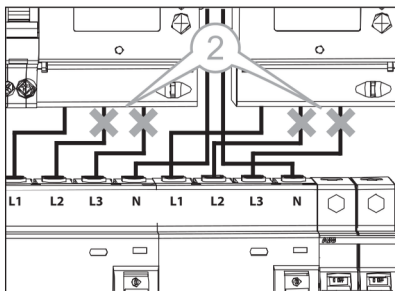
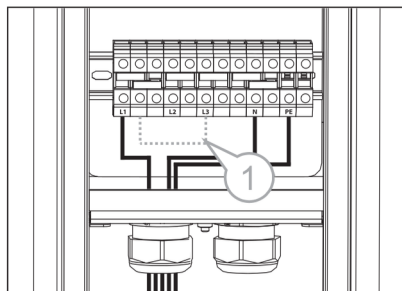
- 1-phase: 230 V $\pm$ 10 % - 50 Hz.
- 3-phase: 400 V (3×400 V + N) $\pm$ 10 % - 50 Hz.

A 3-phase charging station can also be connected to a 1-phase setup. Important note: when connecting only 1 phase, the phase rotation between the two sockets must be undone and the charging station **MUST** be connected to L1, NOT to L2 or L3. Make sure there is 230V between L1 and N at the power input of the charging station.



Since the RCD's leakage currents test button is internally located between L3 and N, the following change needs to be made:

1. Place a wire bridge from the input terminal block L1 to L3. (Wire specifications: H07V2K – 6 mm²)
2. Remove the L2 and L3 wire between the RCD and energy meter.



Some electrical vehicles may have a more limited voltage tolerance than 10%. If issues occur when charging, and the voltage is close to the 10% voltage tolerance, check that the electrical vehicle type is suitable for charging with this voltage.

8.6 Electrical protection specifications

Circuit breaker

The installer must select a suitable circuit breaker (type B or C, rated 63A) to match the charging limit of the charging station, taking into account the specifications of the circuit breaker manufacturer, selectivity regulations and EV-Ready guidelines.

Set a lower load limit on the charging station than the nominal current of the charging station protection.	
The overcurrent protection is built in as part of other electrical components in an existing consumer unit.	Set the load limit to 80% of the rated current.
The overcurrent protection is built into a special case with adequate cooling.	Set the load limit to 90% of the rated current.
A simultaneity factor of 1 was used in the design of the consumer unit.	

9. INSTALLING ANCHOR

Before installing the anchor, carefully consider and prepare where the cables will come from and how they will reach the charging station mounted to that anchor. If you are planning to install multiple charging stations in the same area, consider how these charging stations should be connected to each other or to a central source, and how that will affect the cable setup. For more information, see 10.3 Networking multiple charging stations on page 34.

Assemble the anchor first, using the instructions provided with the anchor. When setting up the passage of the cables through the anchor to the charging station, make sure the cables are sufficiently protected. Always use a waiting tube and provide a sufficient cable length so the cable can reach out of the ground (at least 1m for power cord, 2m for communication cable).

The arrow on the mounting plate of the anchor corresponds to the front of the charging station. The minimum distance between the mounting plate and a wall or obstacle must be at least 300mm.

When installing the anchor, leave the bolts in the mounting plate. This way you prevent the holes from getting filled with concrete or other material.

1) Dig a hole for the ground anchor, approximately 65 cm deep and

50 cm in diameter.

Avoid digging much deeper than necessary, as this will cause the soil to become looser. In a few years' time, the stability of the ground mount may degrade if the soil is too loose.



CAUTION

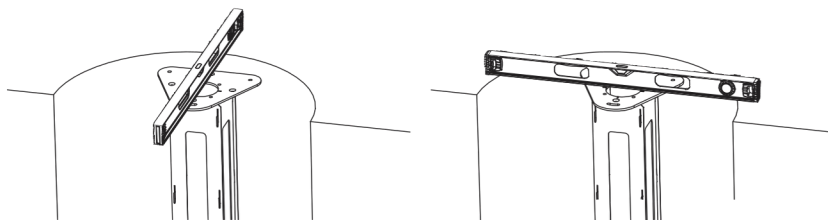
There may be objects in the ground which you want to avoid hitting. Check for the presence of underground objects before you start digging.

2) Level the first 5 cm with quick-drying concrete. Don't wet the concrete yet.

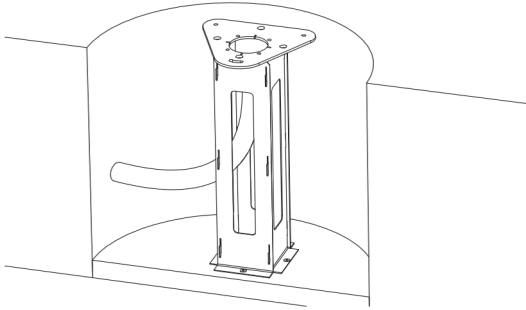
3) Place the anchor. Make sure that the anchor is correctly placed in

all directions and dimensions. Make sure that the charging station can be attached at surface level.

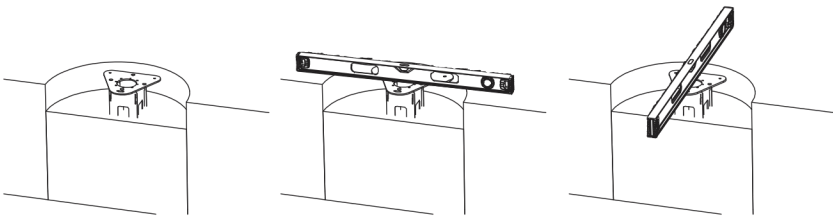
- a Make sure that the top of the anchor plate is level with ground level.
- b If the charging station is placed parallel to a wall, border, etc., check that the object is actually parallel in relation to the back of the anchor plate.
- c Check and note the X and Y directions of the anchor.



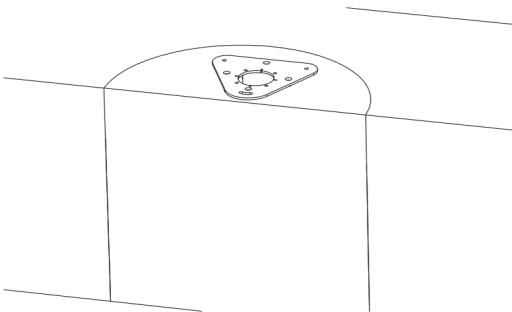
- 4) Place the power cord and other cables in a waiting tube, as they must be enveloped by a protective flexible sheath in the area where concrete will be poured. Make sure the cables and waiting tube can lead into the created hole. Make sure the length of cable is sufficient to reach 1m above the anchor. The communication cable requires a length of 2m.
- 5) Provide a separate, additional waiting tube for every additional underground connection, such as a grounding system or the optional vehicle detection system. For more information, see 11. Installing vehicle detection (optional) on page 38.
- 6) Lead every waiting tube that you wish to use through one of the side openings and up through the hole in the anchor plate, until the waiting tube protrudes just above the anchor. Make sure all of the necessary cables are passed through the waiting tube, and can later be guided into the charging station.



- 7) When all components have been properly placed, pour quick-drying concrete in the hole so that at least $\frac{2}{3}$ of the hole is filled. While pouring, check the X and Y directions of the anchor a few times to ensure that it remains in place.



- 8) Let the concrete harden. Add a layer of filler soil or pavement on top of the hardened concrete and stomp the soil down or adjust the pavement until it is level.



10. INSTALLING CHARGING STATION(S)

If you wish to install more than one charging station in one area, consider your method of creating a network that connects all charging stations. See 10.3 Networking multiple charging stations on page 34 for more information.

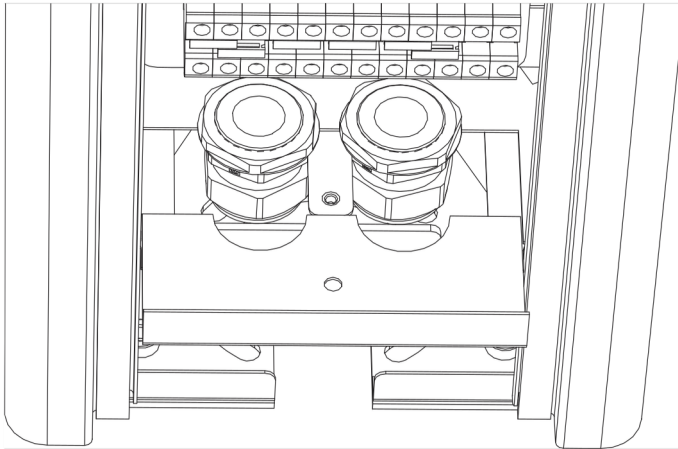
~~10.1~~ Mounting charging station

1) Remove the bolts from the anchor so that the charging station

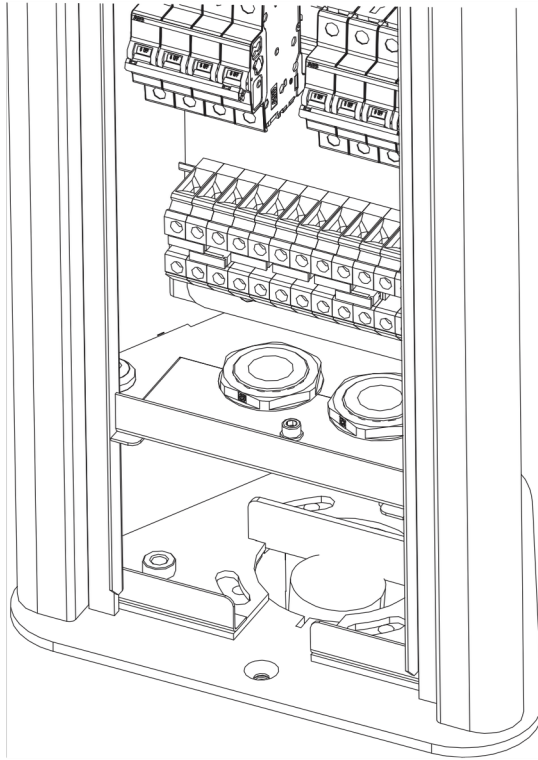
can be placed on the anchor.

2) Remove the door from the charging station and place it flat on the ground so that it is not damaged during installation.

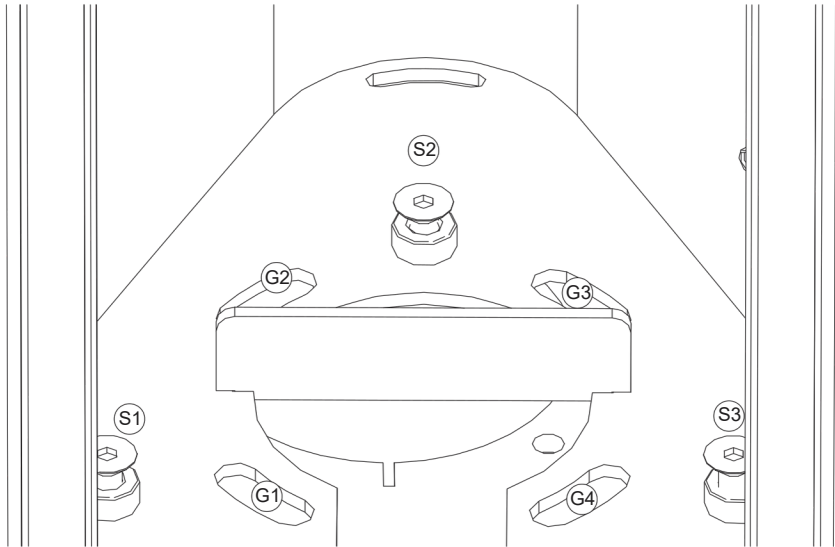
3) Remove the swivel plate and swivels at the bottom of the charging station.



4) Slide the charging station carefully over the waiting tube via the pre-made slot, so that the charging station is slotted in place over the anchor.



- 5) Make sure the charging station is correctly positioned and level using the sliding slots and adjusting bolts at the bottom of the charging station. The sliding slots (G1-G4) ensure that the charging station still has a few degrees of adjustment around the length of the shaft if the anchor is not 100% correctly positioned when slotted. The adjusting bolts (S1-S3) ensure that the charging station's mounting angle can be adjusted if the anchor or surface is not entirely level.



It is important that you do not tighten the anchor bolts in the sliding slots (G1-G4) completely before the adjusting bolts (S1-S3) are properly set up.

Turn the adjusting bolt in the front (S2) to control how much the charging station leans to the rear. Turn the adjusting bolt on the left (S1) to control how much the charging station leans to the right. Turn the adjusting bolt on the right (S3) to control how much the charging station leans to the left. Turn the left and right adjusting bolts (S1 + S3) to control how much the charging station leans forward.

- 6) When the charging station is correctly positioned, lock its position by screwing the counter nuts on the adjusting bolts downwards until tightened. Now tighten the anchor bolts firmly (at 54Nm). After this, check the position of the charging station with a level and visually from a distance.

10.2 Setting up charging station

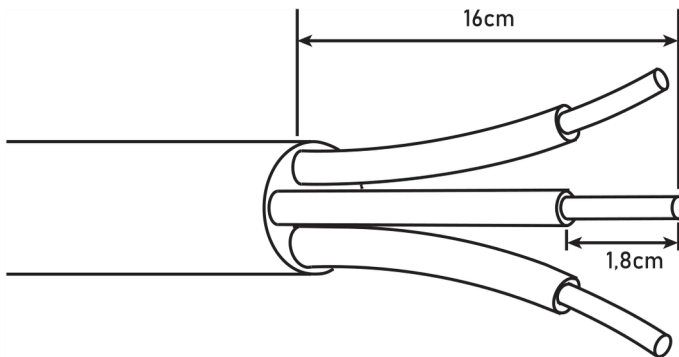


DANGER

Hazard of electric shock, explosion or arc flash. Ensure that all safety measures have been observed, and that the device or cabling is never worked on while the components are still carrying an electrical current.

Connecting power cable

1) Strip the cables according to the following specifications.

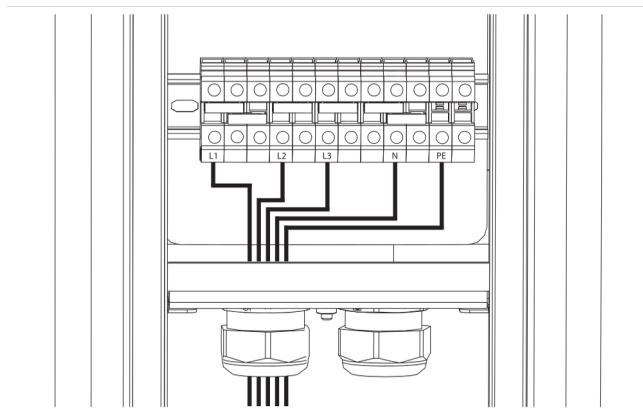


- a Strip ± 16 cm from the exterior insulating coating of the power cord. Consider shortening cable length if that makes installation easier.
- b Strip $\pm 1,8$ cm from the exterior insulating coating of the L1, L2, L3, N and PE wires.

2) Introduce the power cable into the charging station through one of the large swivels at the bottom of the charging station.

- The swivel in size M40 is suitable for a cable diameter of 19mm - 28mm.
- Make sure the outer sheath reaches a sufficient distance past the swivel.

- 3) The connection points for the power cable are on the bottom side of the charging station. Connect each phase cable to its corresponding cable slot and the grounding cable to the PE slot.



The charging station contains labelled cable slots. In order from left to right, cables should be attached to the slots as follows:

L1 slot: brown cable

L2 slot: black cable

L3 slot: grey cable

N slot: blue cable

PE slot: green-yellow cable

The cable colors are dictated by the IEC 60445 standard.

If you are using a 3x230V setup without N cable, attach the PE cable to the PE slot and attach one cable to the L1 slot, the other to the N slot. This is identical to the 1 phase configuration.

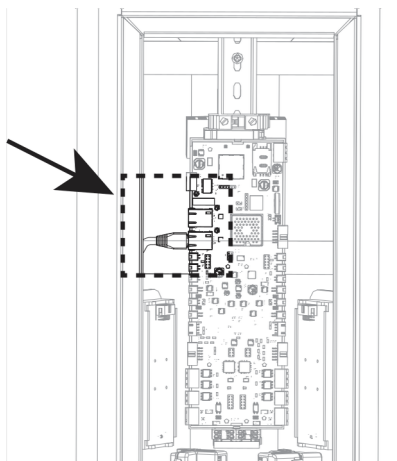
- 4) If you want the power connections from this charging station to carry over to another charging station, connect the cables from the outgoing power cord to the other terminal block. The charging station is equipped with at least two terminal blocks for each phase to make daisy chaining possible. The outgoing power cord can be led out of the charging station through one of the large

swivels at the bottom of the charging station.

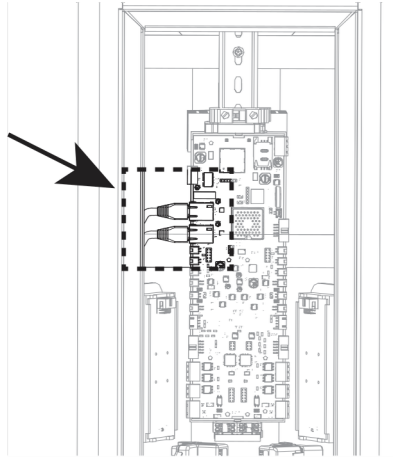
Connecting ethernet cable

An ethernet cable can be connected to the charging station if a LAN connection is used to connect to the back office instead of a modem connection, or if the charging station is integrated in a larger network as part of the charging setup.

- 1) Use at least one CAT5e UTP cable or higher. Introduce the cable into the charging station through the smaller swivel off to the side at the bottom of the charging station.
- 2) Connect the incoming ethernet cable to the bottom ethernet port (ethernet 1) on the circuit board at the top of the charging station.



3) If you want the ethernet connection from this charging station to carry over to another charging station, connect another, outgoing ethernet cable to the top ethernet port on the circuit board. The outgoing cable can be led out of the charging station through the smaller swivel off to the side at the bottom of the charging station.



10.3 Networking multiple charging stations

Master - satellite connections

If multiple charging stations have to be installed in one area, each charging station can be independently linked up to a power source and to the internet. However, it is also possible to connect one charging station up to a power source and/or the internet, and then transfer these connections over from that charging station to another.

At the bottom of each charging station, there are at least two terminal blocks for each phase. On the control board, two ethernet connectors are available to enable daisy chaining between charging stations.

The charging station that is connected directly to a power source and/or internet connection device is referred to in this context as a 'master'. Any other charging station, which derives its connection(s) from the master directly, or indirectly through one or more intermediate charging stations, is referred to in this context as a 'satellite'.

If you want to pass power through from a master to a satellite, or from one satellite to another, link up an outgoing power cord to the already connected charging station, and connect it up as an incoming power cord in another charging station. For any additional charging station in the setup, you can repeat the process of connecting a second power cable to a previous charging station so that it links up with the next charging station. It is recommended to set the charging stations up in a line, connect the first one up so it acts as a master, and then connect master to satellite, and satellite to satellite, from the previous charging station to the very next charging station along that line.

For more information, see Connecting power cable on page 30.

Internet connections

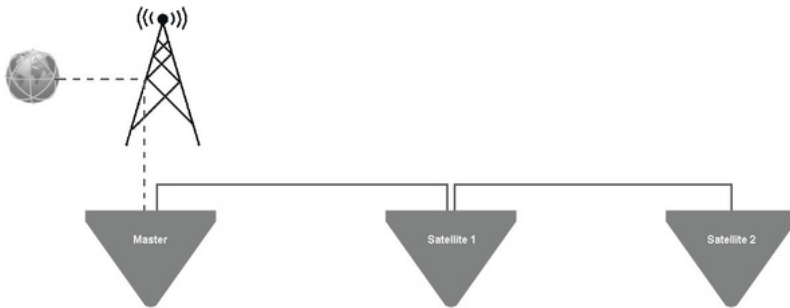
A few different methods can be used to connect one or more charging stations to the internet.

If no ethernet cable is connected to the bottom ethernet port (ethernet 1) on the control module at the top of the charging station, the charging station will fall back to modem and attempt to set up a mobile / GPRS connection with the back office. If an ethernet cable is connected, then the charging station will prioritize the wired connection. Each charging station can thus be set up with its own internet connection, wired or wireless. When creating a network, the master may also be connected wirelessly or with an ethernet cable to the internet connection source. In either case, the connection made by the master can then be linked through to satellites using ethernet cables.

If you want to pass an internet connection through from a master to a satellite, or from one satellite to another, link up an outgoing ethernet cable to the already connected charging station, and connect it up as an incoming ethernet cable in another charging station. For any additional charging station in the setup, you can repeat the process of connecting a second ethernet cable to a previous charging station so that it links up with the next.

Taking into consideration how the master is connected, two connection setup methods are possible for a network of charging stations linked to a master.

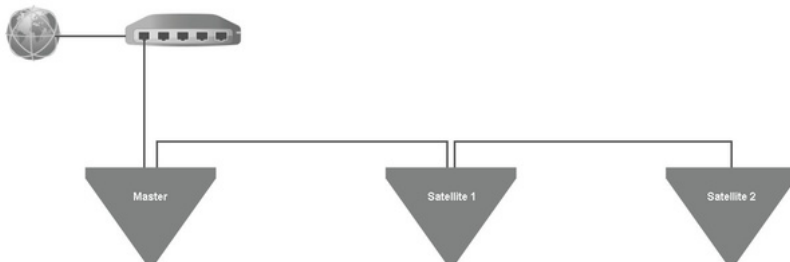
Modem configuration



The modem configuration is installed as follows:

- Master ethernet 1 not connected
- Master ethernet 2 to satellite 1 ethernet 1
- Satellite 1 ethernet 2 to satellite 2 ethernet 1

Daisy Chain configuration

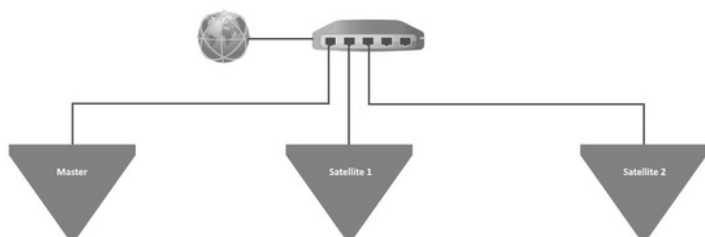


The daisy chain configuration is installed as follows:

- Switch to master ethernet 1
- Master ethernet 2 to satellite 1 ethernet 1
- Satellite 1 ethernet 2 to satellite 2 ethernet 1

Alternatively, it is also possible to link each charging station up to the internet connection source individually.

Star configuration



The star configuration is installed as follows:

- Switch to master ethernet 1
- Switch to satellite 1 ethernet 1
- Switch to satellite 2 ethernet 1

For more information about establishing a wired internet connection in a charging station, see [Connecting ethernet cable on page 32](#).

11. FINISHING INSTALLATION

When all of the installation steps have been successfully completed, the functionality of the PRO400 charging station must be tested. While exercising caution and paying attention to possible malfunctions, turn on the power to the charging station and then switch on the Miniature Circuit Breaker. When the charging station is ready, perform the site acceptance tests (SAT).

11.1 Site Acceptance Tests (SAT)

General	
Test performed by	
Date test	
Charger type	
Charging station ID	
Charger serial number	
Firmware	
ICCID SIM card	

Visual inspection		
Definition	Checked	Comments
Charger is connected in a safe manner and according to the applicable standards		
Charger is delivered undamaged and clean after installation		

General operation testing		
Definition	Checked	Comments
Measuring voltage phases	L1: V L2: V L3: V	
Connection backend		Status online/offline/ rejected
Operation RFID		RFID responds to swipe

12. SUPPORT

If you require customer support, please contact the installer or distributor of your purchase.

13. ABBREVIATIONS

°C:	Degrees Celsius
Ω :	Ohm
2G:	Second Generation cellular network
4G:	Fourth Generation cellular network
A:	Ampere
AC:	Alternating Current
CAT5e:	Category 5 Enhanced
CE:	Conformité Européenne
CEM:	Compatibilité électromagnétique
cm:	Centimeter
DC:	Direct Current
EN:	European Norm
EU:	European Union
EV:	Electric Vehicle
FR:	France
Hz:	Hertz
ICCID:	Integrated Circuit Card Identifier
ID:	Identifier
IEC:	International Electrotechnical Commission
IK:	Impact Protection rating
IP:	Ingress Protection code
kg:	Kilogram
kW:	Kilowatt
kWh:	Kilowatt-hour
LAN:	Local Area Network
LED:	Light Emitting Diode
m:	Meter
mA:	Milliampere
MCB:	Mini Circuit Breaker

MID:	Measurement Instruments Directive
mm:	Millimeter
MOhm:	MegaOhm
N:	Neutral
NF:	Norme Française
Nm:	Newton meter
OCPP:	Open Charge Point Protocol
P+N:	Phases + Neutral
PE:	Protective Earth
QR:	Quick Response
RCBO:	Residual Current Breaker with Over-Current
RED:	Radio Equipment Directive
RFID:	Radio Frequency Identification Device
RJ:	Registered Jack
RoHS:	Restriction of (the use of certain) Hazardous Substances in electrical and electronic Equipment
S1:	Station 1
S2:	Station 2
SAT:	Site Acceptance Tests
SIM:	Subscriber Identity Module
SL1:	First induction loop
SL2:	Second induction loop
STP:	Shielded Twister Pair
T2:	Type 2 socket
UTP:	Unshielded Twisted Pair
V:	Volt
VAC:	Volts of Alternating Current

14. SOFTWARE

Used software licenses:

AGPL
AFL-2.1
Artistic-1.0
BSD
BSD-2-Clause
BSD-3-Clause
BSD-4-Clause
bzip2
CLOSED
EPL-1.0
GFDL-1.2
GPL-2.0
GPL-2+
GPL-3.0-with-GCC-exception
GPLv2
GPLv2+
GPLv3
GPLv3+
ISC
LGPL-2.1
LGPL-2.1+
LGPLv2
LGPLv2.1
LGPLv2.1+
LGPLv2+
LGPLv3
LGPLv3+
MICROCHIP_CRYPTOAUTHLIB_LICENSE
MIT
MIT-style
MPL-1.1
MPL-2.0