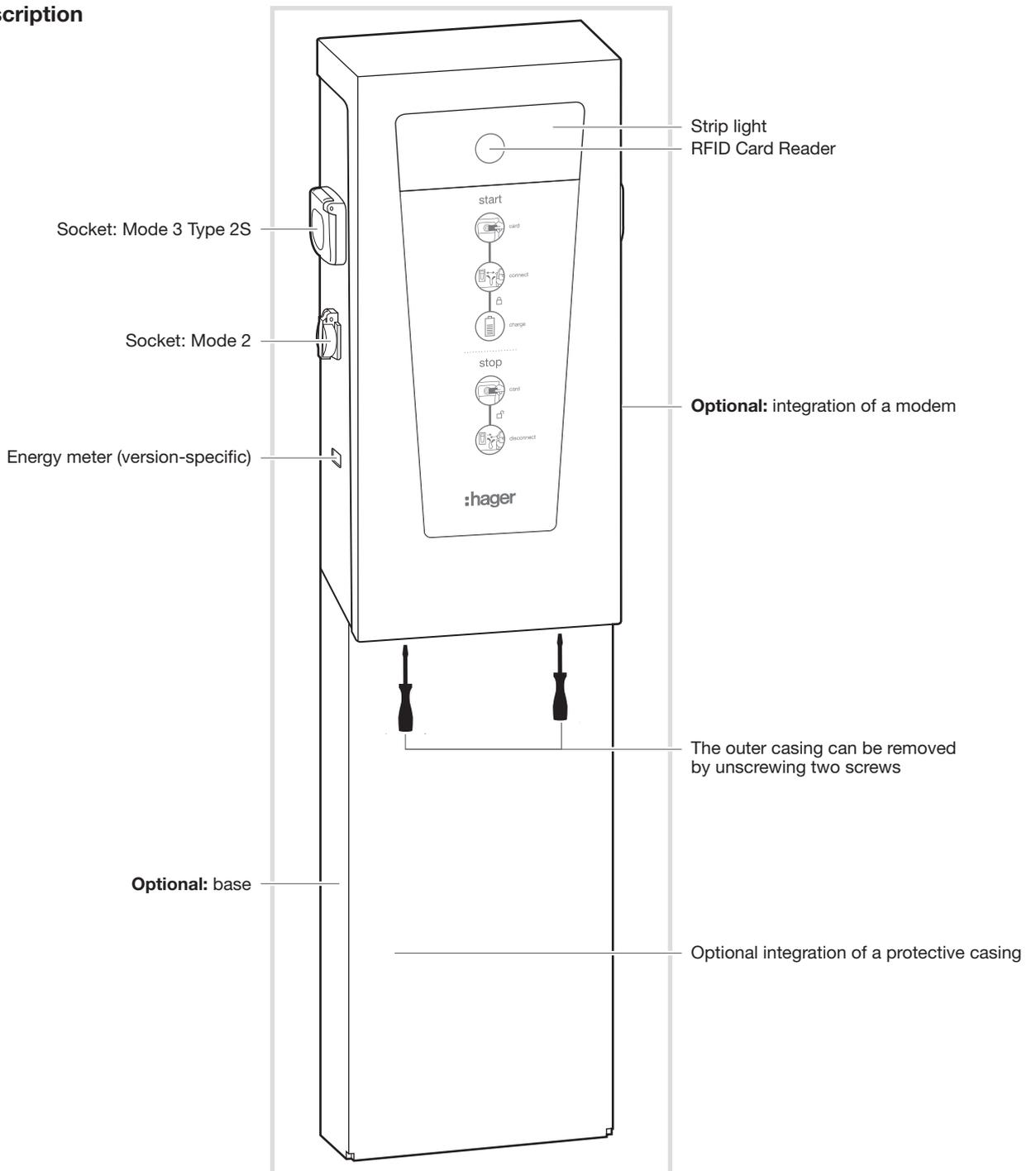**EN**   Installation manual

6LE002957D

Hager witty park XEV6xx
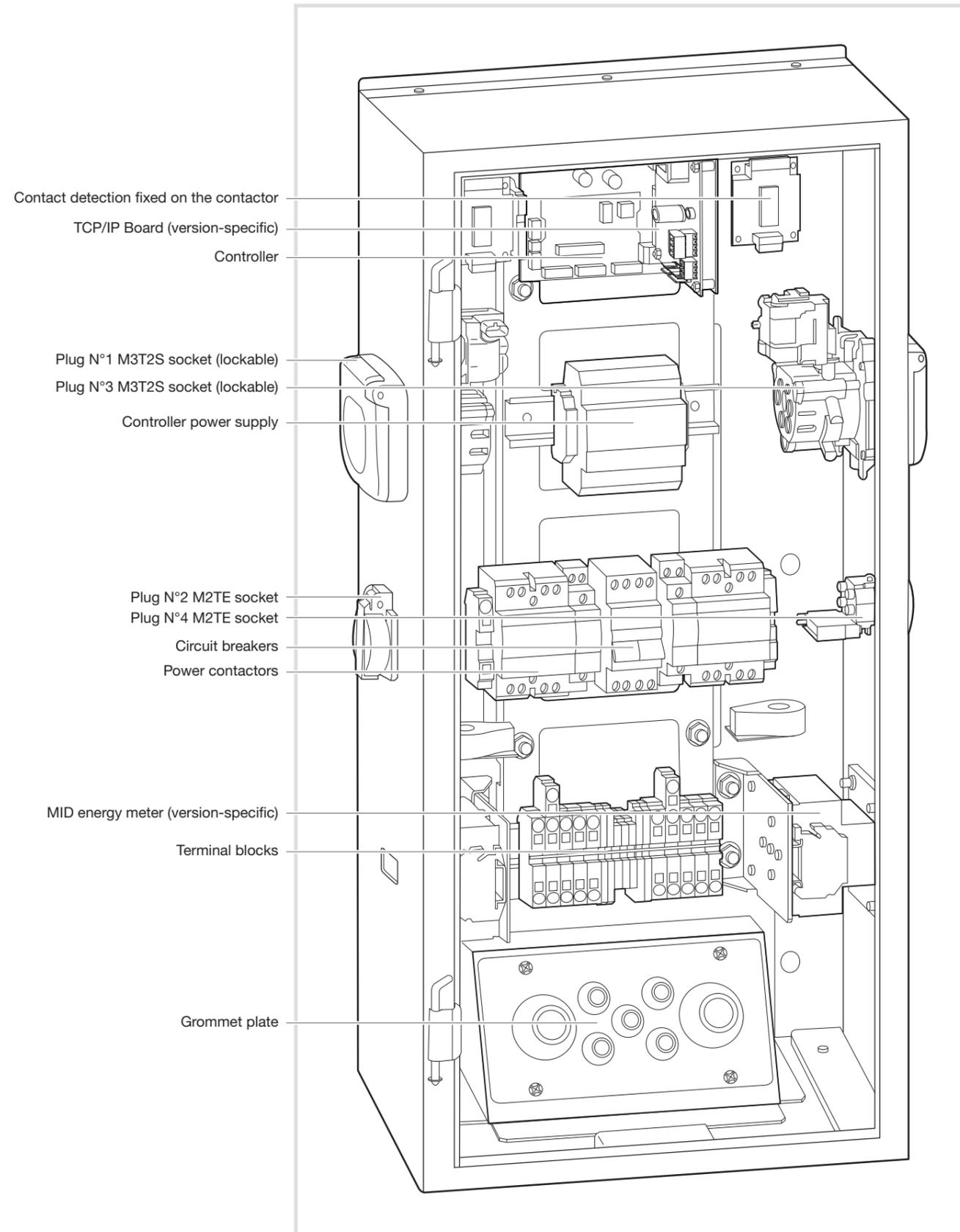
1. Initial precautions

Please refer to the maintenance manual before starting the installation of the charging station. The device is to be installed only by a professional electrician fitter according to local applicable installation standards. Conform to SELV installation rules.

2. General description

Strip light
RFID Card Reader

Socket: Mode 3 Type 2S

Socket: Mode 2

Energy meter (version-specific)

start

card

connect

charge

stop

card

disconnect

:hager

Optional: integration of a modem

The outer casing can be removed by unscrewing two screws

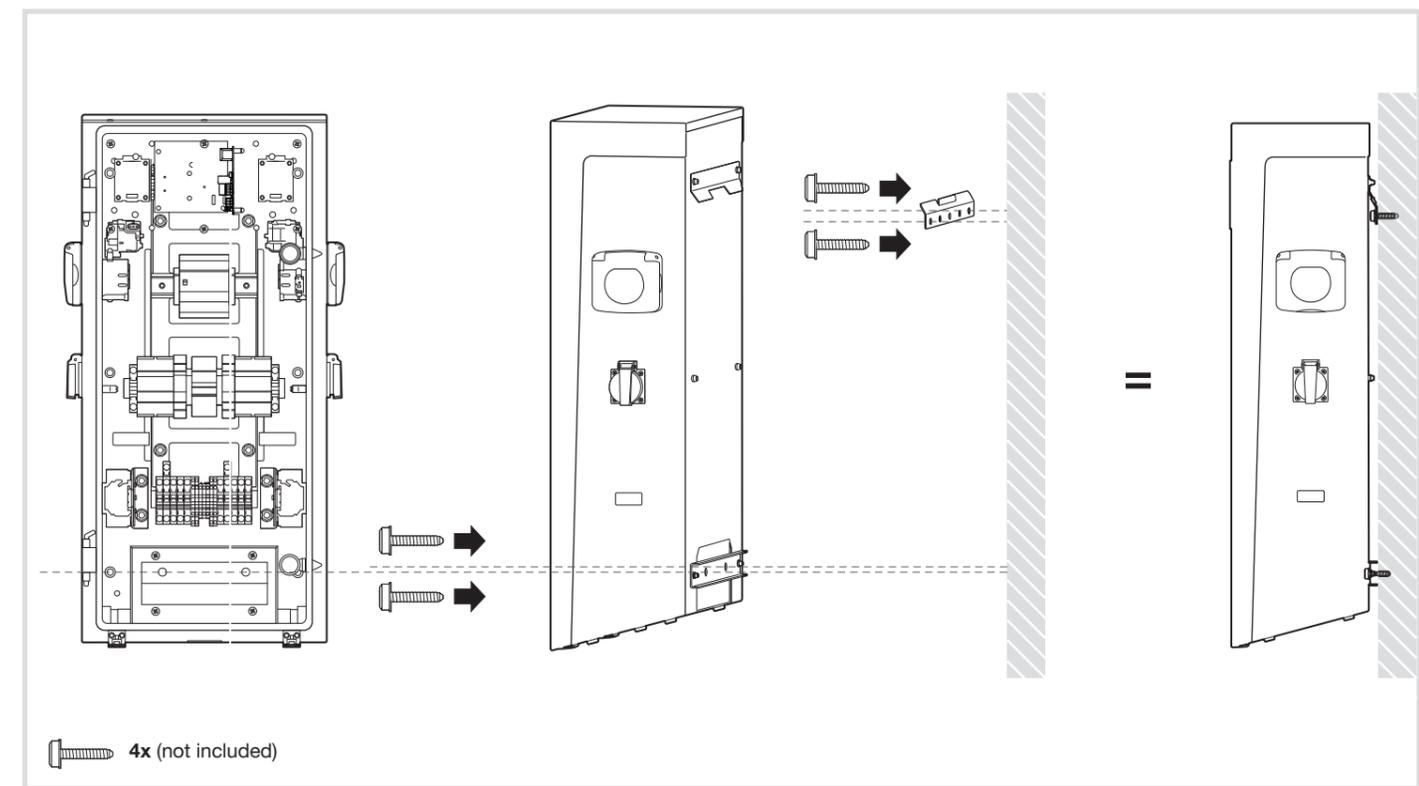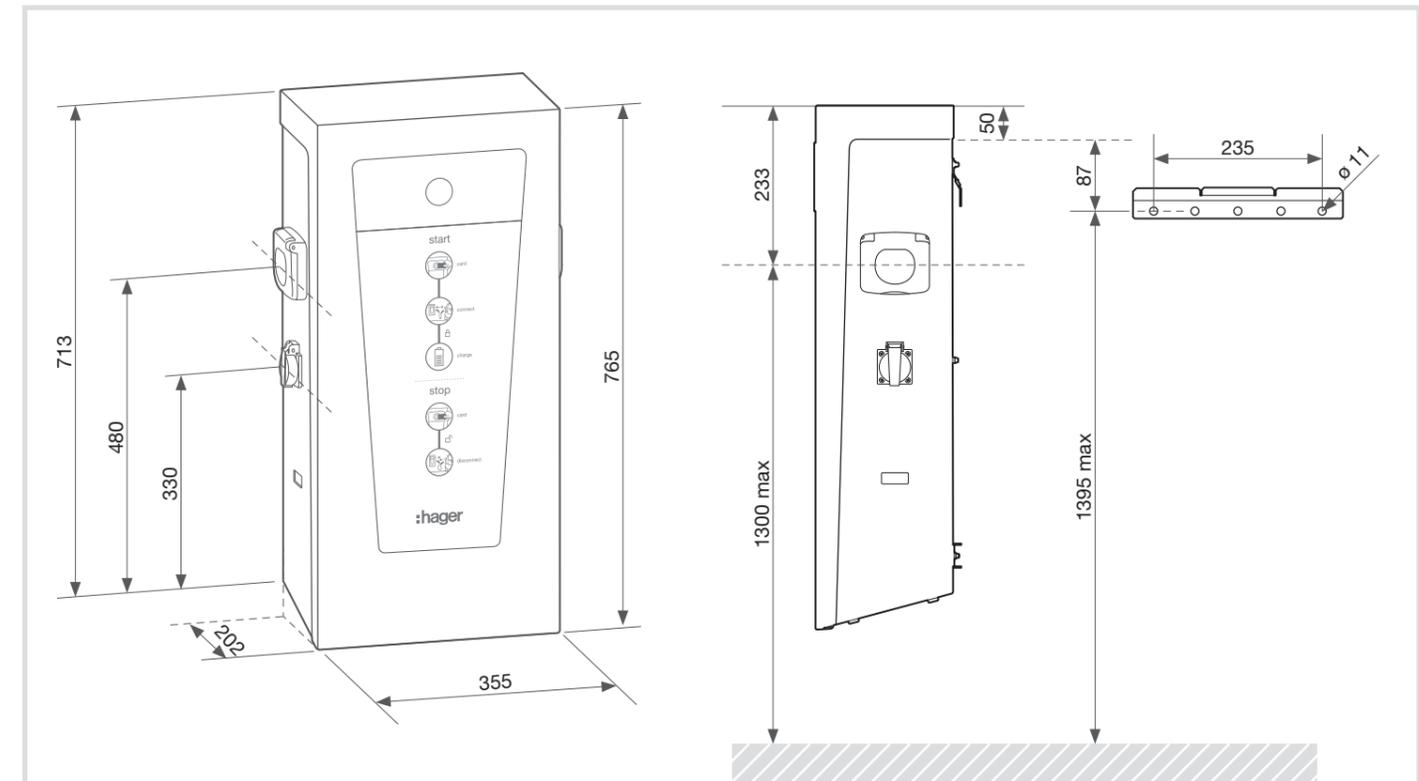**Optional:** base

Optional integration of a protective casing

3. Electrical components of the charging terminal

The inner cabinet, depending on the version, comprises the following parts:

- Contact detection fixed on the contactor
- TCP/IP Board (version-specific)
- Controller
- Plug N°1 M3T2S socket (lockable)
- Plug N°3 M3T2S socket (lockable)
- Controller power supply
- Plug N°2 M2TE socket
- Plug N°4 M2TE socket
- Circuit breakers
- Power contactors
- MID energy meter (version-specific)
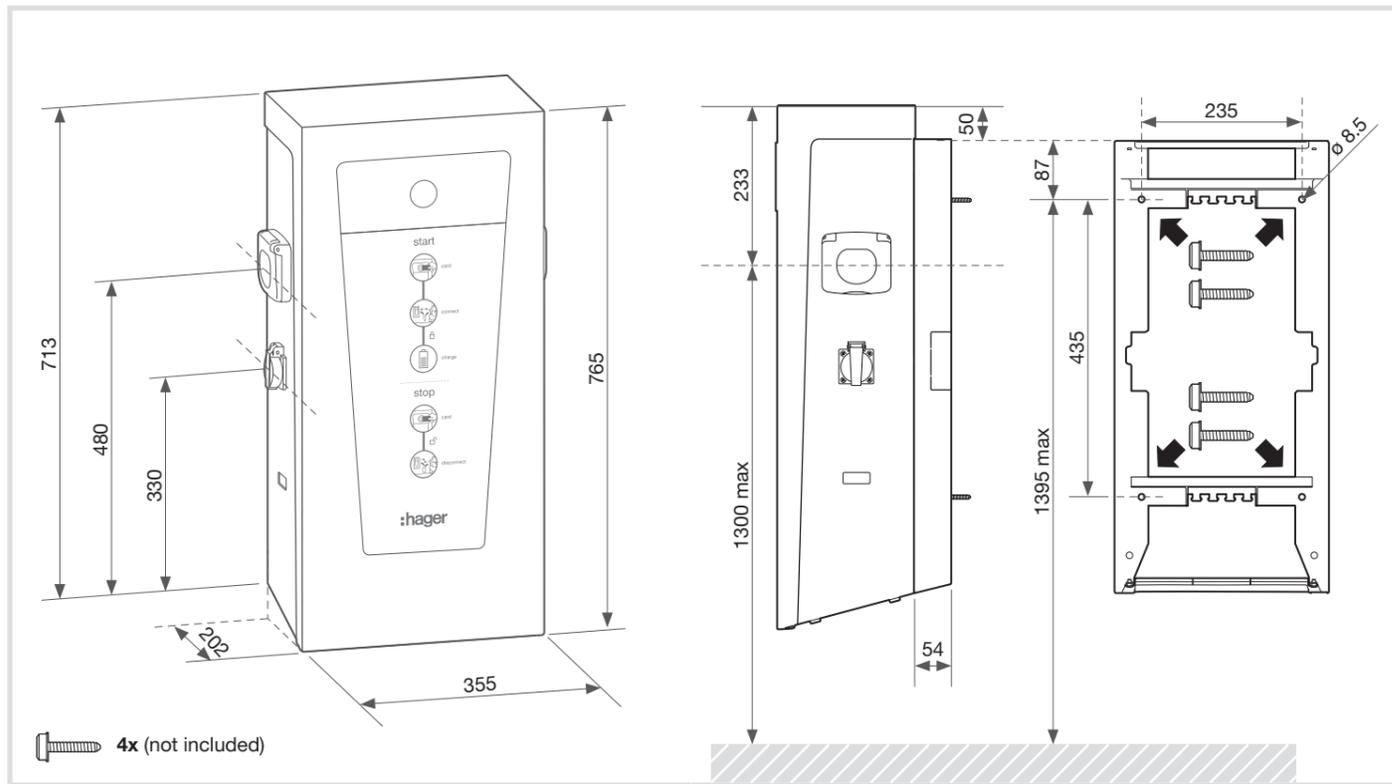- Terminal blocks
- Grommet plate

4. Attachment and connection

a. Diagrams for wall drilling without wiring space at the rear

4x (not included)

b. Diagrams for wall drilling with wiring space at the rear for XEV427

713
480
330
202
355

765
233
50
1300 max
54

235
Ø 8.5
87
435
1395 max

4x (not included)

XEV427

2x
2x
+
=

c. Floor mounting diagrams for XEV426 + XEV428

202
1472
1239
1089
175
355

XEV426

650
325
325
250
250
500

Terminal
Installation Area

Foundation
C20/25, X0 Depth
80 cm

Bedding Layer
5 cm, C8/10

XEV428

190
175
70
110
250
350

In case of a chemical seal, use
threaded rods with diameter of 12 mm.

! The terminal MUST be mounted on its base BEFORE if used attaching the vector cabinet. The equipotential bonding must be established between the terminal, foot and base.

* Earthing point to connect to the earth system

5. Electrical installation

a. Power supply

Wiring diagram (version-specific)

| -X1/2 ⏚ N L1 L2 L3 | -X0.1 N LST | -X0 L N | -X0.3 N LST | -X3/4 ⏚ N L1 L2 L3 |

| Three-phase power supply 1 (-X1/-X2) | MZ203 trigger circuit connection (-X1) | Controller power supply | MZ203 Trigger circuit connection (-X3) | Three-phase power supply 2 (-X3/-X4) |
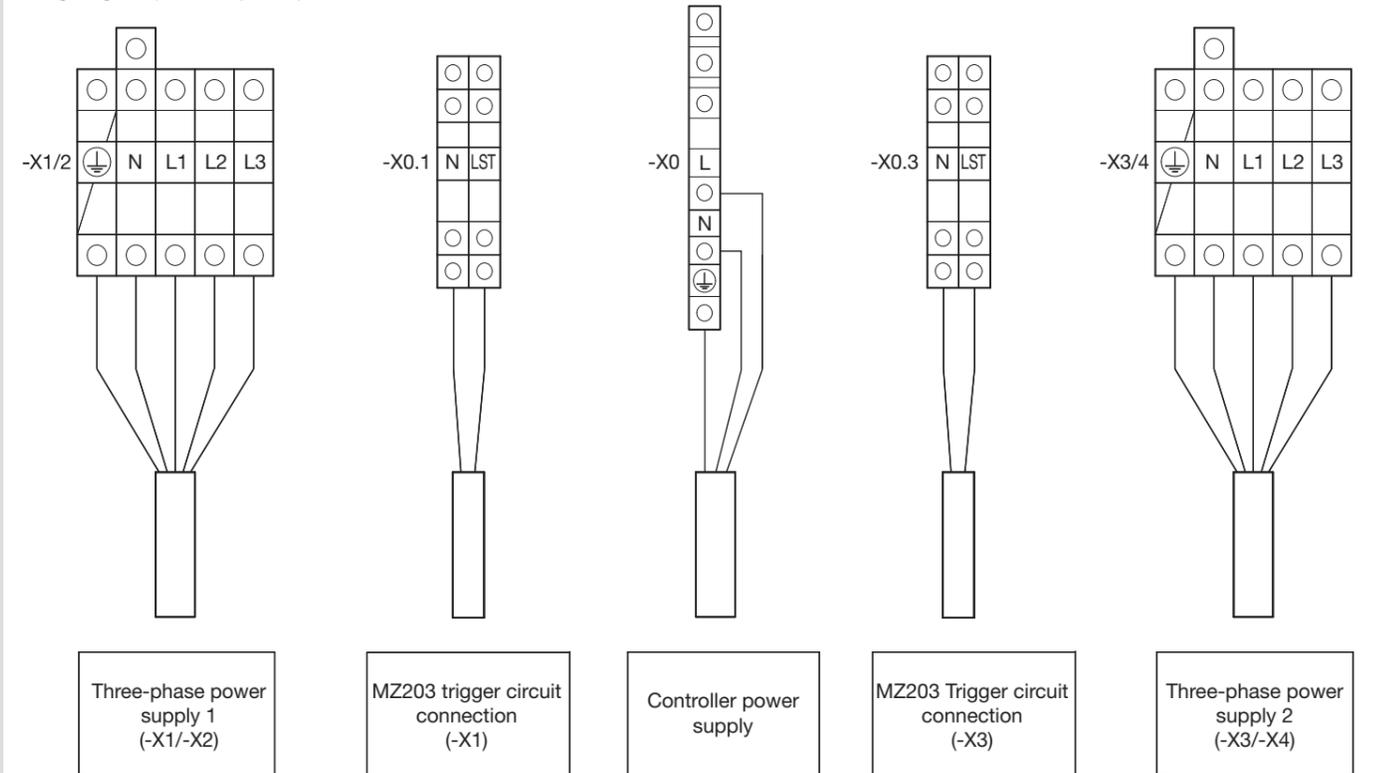
Power terminal block (230V/32A) for rigid cable of max. 10 mm^2.

Control terminal blocks of transmitter coils for rigid cable of max. 1.5 mm^2.

Power supply terminal block (230V) of the controller for rigid cable of max. 1.5 mm^2.

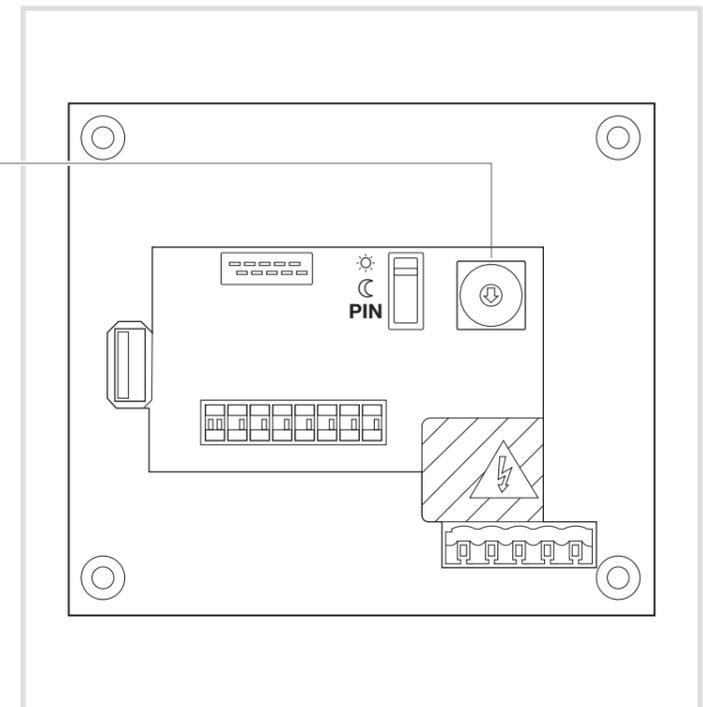Upstream protection for controller power supply: Circuit breaker 16A, C curve

b. Maximum power load

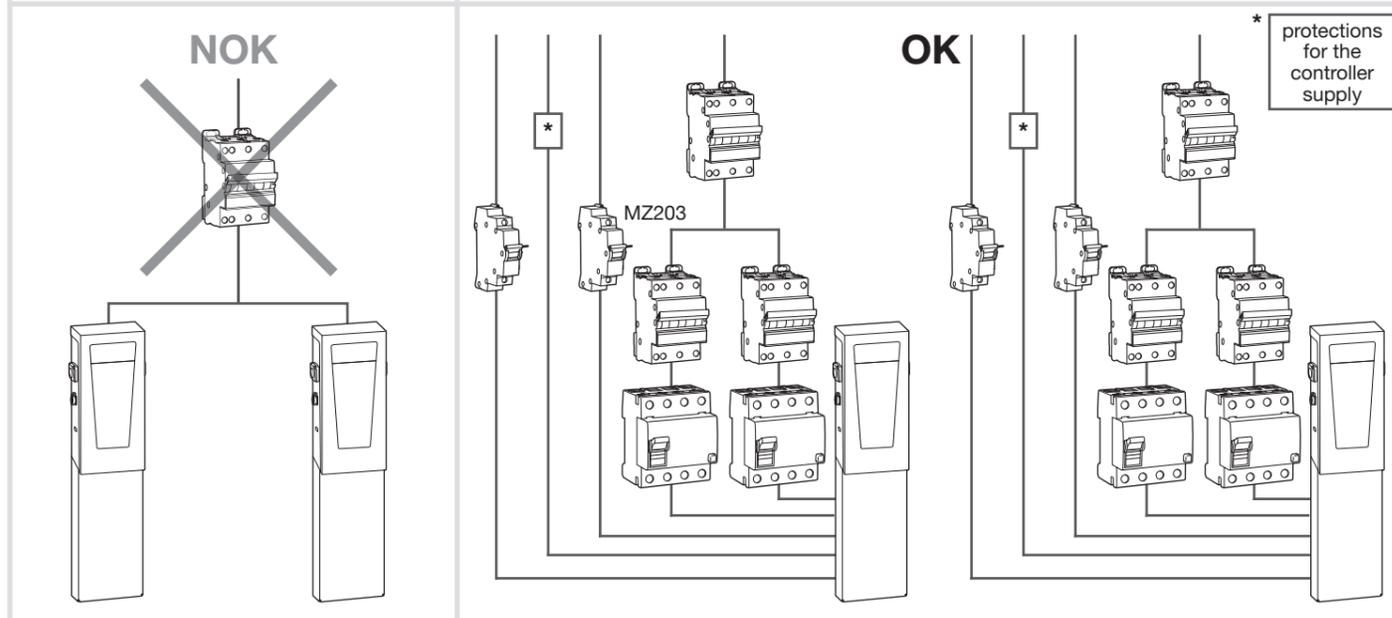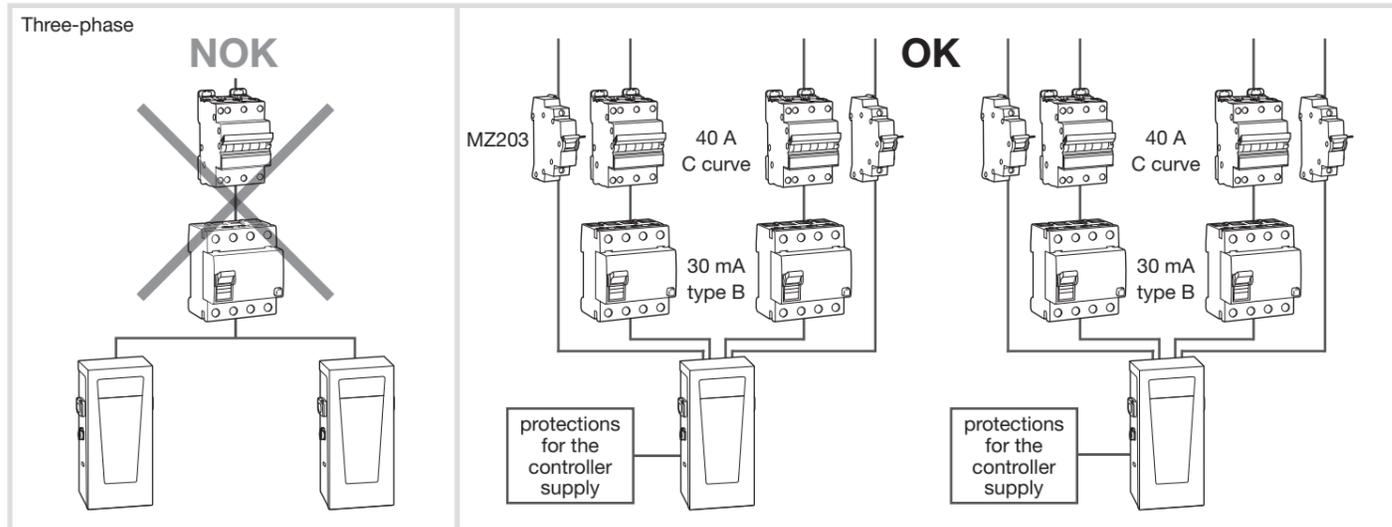The maximum power load is determined using the encoder wheel that can be turned to the desired amperage.

If the LED indicator light is a solid red, turn off the power, wait for 15 seconds and then change the position of the encoder wheel to an authorised threshold.

Then, turn on the terminal: a steady green light should light up.

Maximum charging rate	3-phases station	1-phase station
6 A	Not authorised by ZE Ready 1.2	Not authorised by ZE Ready 1.2
10 A		
13 A		
16 A		
20 A		
25 A		
32 A		
40 A	Prohibited for the electrical safety of the terminals	
50 A		
63 A		

c. Protections

Single-phase

NOK

OK

MZ203 — 40 A C curve — 30 mA type A — protections for the controller supply

40 A C curve — 30 mA type A — protections for the controller supply

Three-phase

NOK

OK

MZ203 — 40 A C curve — 30 mA type B — protections for the controller supply

40 A C curve — 30 mA type B — protections for the controller supply

NOK

OK

MZ203

* protections for the controller supply
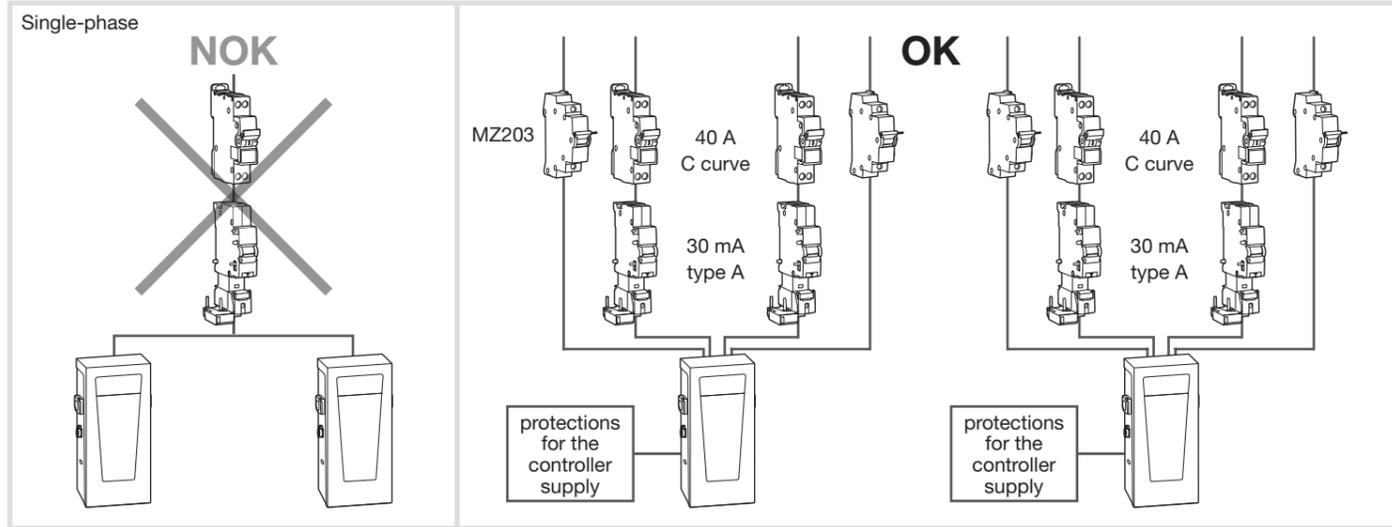
d. Earthing quality according to the ZE READY 1.2 label

NOK

IT neutral point connection

OK

TN or TT neutral point connection

Max. 50 Ω

Max. 50 Ω for the 5 stations

Max. 5 stations on 1 earthing connection

Interconnection
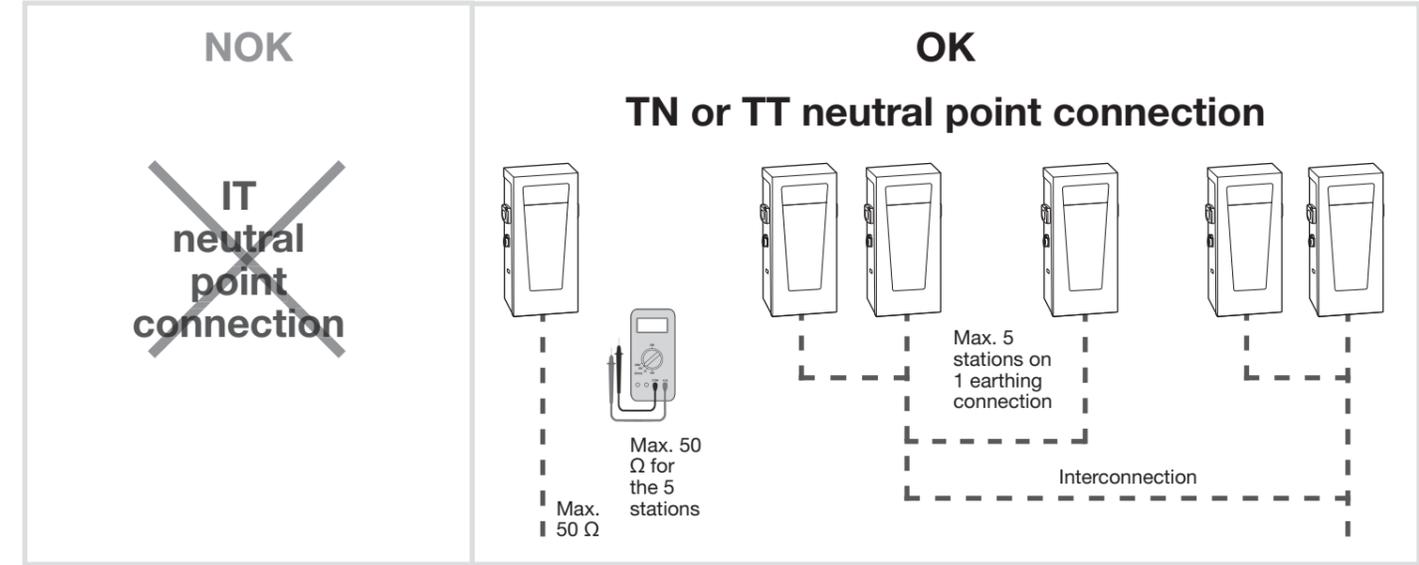
e. Contact detection fixed on the contactor in accordance with the ZE READY 1.2

All Witty stations with a nominal power load of more than 3.6 kW are equipped with a contact detection mechanism fixed on the contactor.

Electrical cabinet

Station

MZ203 transmitter coils

ZE READY 1.2

Disconnection from network if contact is fixed

Fault detected = Information via solid red indicator light for 3 seconds + Disconnection from network

Power > 4 kVA only

Protection integrated in the electronic board

-X0:1 N LST   -X0:3 N LST

Rigid cable 4 x 1.5 mm²
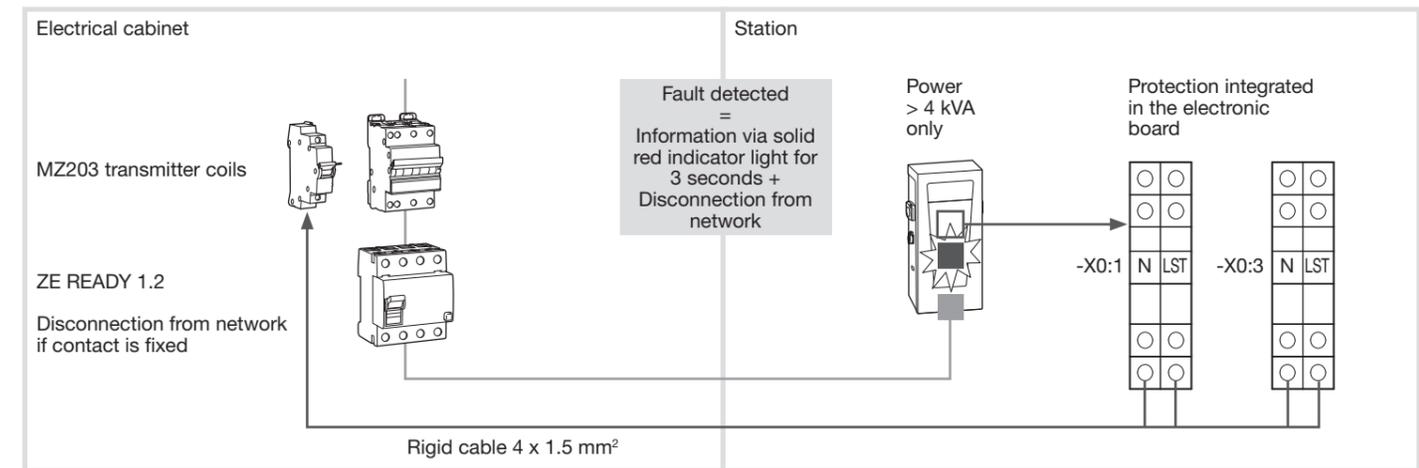
6. Charging station software configuration

Before using the configuration software, please refer to the charging station installation manual. Device to be installed and configured only by an electrical installer according to the installation standards applicable in the country.

The charging station is equipped with a web configurator to configure it. By default, the charging station is configured as a "DHCP client" and, as a result, requires a router with a "DHCP Server" function to operate within the LAN.
If the charging station does not detect the DHCP server, it automatically assigns a fixed IP address (by default: 192.168.0.101), which can be set in the software configuration.

a. Web server access

There are several ways to access the charging station configurator. The configurator is compatible with different screen sizes, such as a laptop, tablet or smartphone.

a.1 Via the charging station name (HostName)

The web server can be accessed directly by entering the address of the charging station name (Host name) in the web browser. The exact address is specific to each charging station, indicating the last 6 characters of its UID code specified on the communication board in the charging station.
Address format: https://hager-evcs-[6Last_caracters_UID.local]/ (example: https://hager-evcs-ab4df5.local/). Except android version<12 (preferred way using IP address)

a.2 Via its IP address

The web server can be accessed by entering the charging station's IP address in the web browser. The charging station's IP address can be detected using an "IP Scanner" third-party application or if the charging station does not detect the DHCP server using its fallback IP address after 120 seconds (default: https://192.168.0.101)

You can restore the default ip configuration with the below procedure:
• Switch off the charging station
• put the rotary wheel on 9
• switch on the charging station
• wait 30 sec
• put off the charging station
• put the rotary wheel on the chosen value
• switch on again the charging station

> ⓘ The charging station could be set in DHCP server mode with the procedure below:

• Switch off the charging station
• put the rotary wheel on 8
• switch on the charging station
• wait 30 sec
• put off the charging station
• put the rotary wheel on the chosen value
• switch on again the charging station

b. Identification page

The configurator is protected by a user name and password. By default, these credentials are:
User name: admin
Password: #HagerXEV60x

When connecting for the first time, you will be asked to change the password to a "strong" password.

You can change the password in the configurator. If you lose these credentials, you can reset them to the default value with the below procedure:
• Switch off the charging station
• put the rotary wheel on 9
• switch on the charging station
• wait 30 sec
• put off the charging station
• put the rotary wheel on the chosen value
• switch on again the charging station

c.1 Standalone mode

When the charging station is configured with the "**Standalone**" setting, the charging station will run without OCPP communication.
The badge management is done through the local configurator.

c.2 OCPP configuration

Enables configuration of the connection to an OCPP server (to be retrieve from the CPO).
• **OCPP server:** OCPP server address
• **Authentication:** authentication method for the OCPP server
• **Login:** OCPP user name
• **Password:** OCPP password
• **ChargePoint ID:** charging station user name (minimum 1 character, by default : serial number of the charging station)

c.3 OCPP mode

4 different mode are available :
• **Full OCPP (by default):** the CPO will get all the charging sessions data and will do the RFID cards management
• **Free access OCPP:** the CPO will get all the charging sessions data but the RFID cards aren't required in order to start a charging session.
• **Standalone Park:** The charging station isn't supervised by a CPO and will manage the RFID cards via the "Whitelist".
The Whitelist can be completed manually by entering the RFID badge credentials, imported via a .txt file, or learned by enabling the "Add by scan" mode and swiping the badges on the charging station's RFID reader.
• **Standalone Home:** The charging station isn't supervised by a CPO and will be in free access.
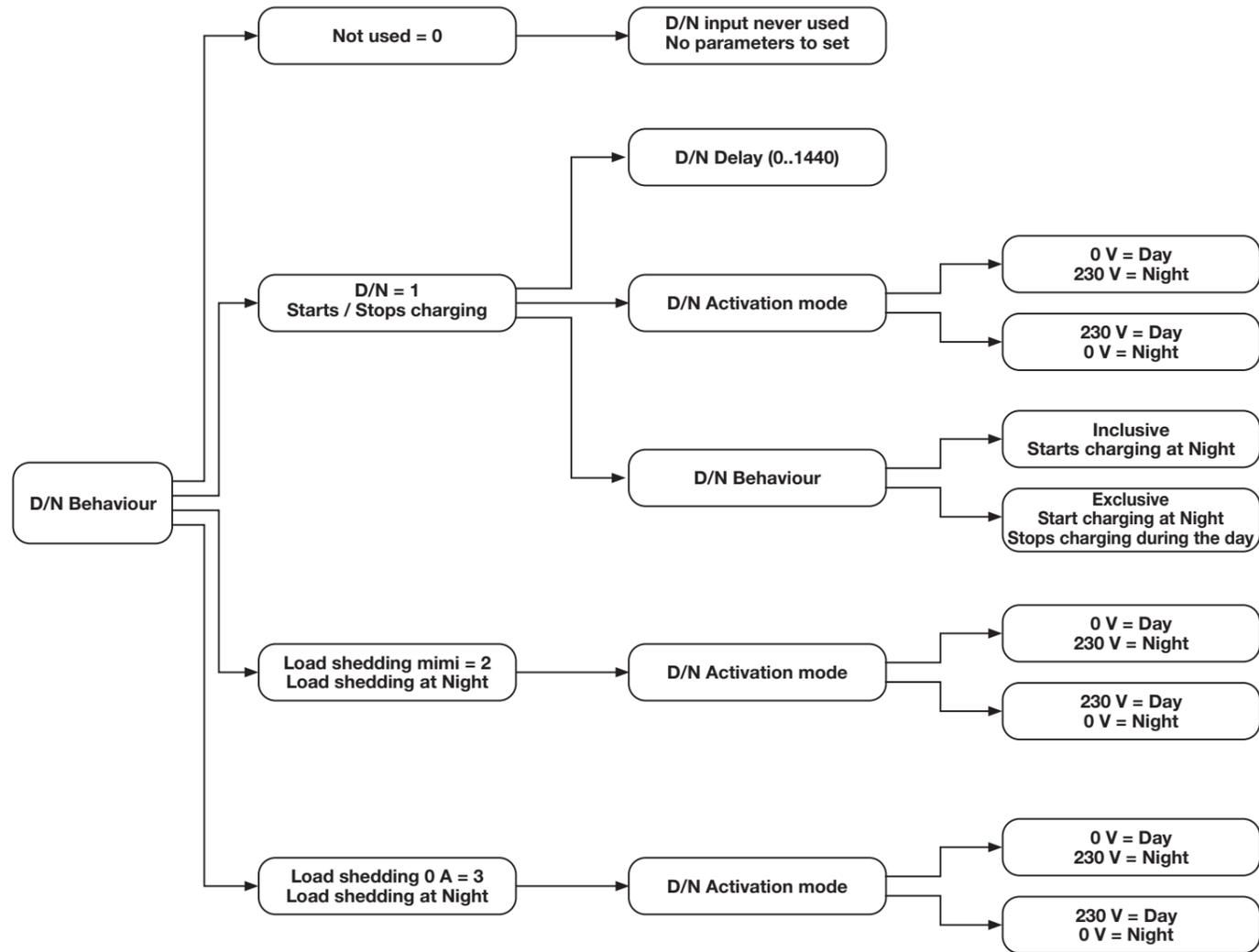
c.4 Network

Enables configuration of the network
• **DHCP client:** (by default) connects to a DHCP server or assigns a fixed IP (if no DHCP server, fallback IP address will be active after 120 seconds)
• **IP address:** defines the fixed IP
• **Fallback IP address:** defines the IP if there is a DHCP error

c.5 Physical installation

Enables the charging station configuration to be completed.
• **Phase rotation:** enables the metering information to be fed back per phase on the correct phase, should the charging station not be supplied in the standard sequence of phases (default value : L1-L2-L3).
• **CHP:** Physical input 24 VDC which allow to do load shedding.
   - If the setting is at 0 (default value), the activation of the input will reduce the charging session to the minimum (depending of the EV41 setting).
   - If the setting is at 1, the activation of the input will stop the charging session.
• **D/N behaviour:** Physical 230V input which allow.
   - If the setting is at 0 (default value), the charging station will start to charge immediately.
   - If the setting is at 1, the charging station will authorize the charge when the "D/N activation mode" will be at "night".
   - If the setting is at 2, the charging station will reduce the charging session to the minimum (depending of the EV41 setting) when the "D/N activation mode" will be at "night".
   - If the setting is at 3, the charging station will suspend the charging session when the "D/N activation mode" will be at "night".
• **D/N activation mode:**
   - If the setting is at 0 (default value)-> 230V = Night / 0V = Day
   - If the setting is at 1 -> 0V = Night / 230V = Day
• **D/N activation delay:** time after when the "night" value will be taken in account (only if day/night setting is activated).
From 0…1440 min (Default value = 0)
• **D/N inclusive and exclusive:** this setting is only available if the parameter "D/N behaviour" is at 1.

Inclusive = 0 (Default value)
The charge is authorized when transition Day -> Night (Depends on D/N activation mode).
Once authorized, the charge will continue until the car is unplug.

Exclusive = 1
The charge is authorized when transition Day -> Night (Depends on D/N activation mode).
The charge is deauthorized when the input goes from Night -> Day (Depends on D/N activation mode).

Flowchart

D/N Behaviour

- **Not used = 0** → D/N input never used / No parameters to set

- **D/N = 1 / Starts / Stops charging**
  - D/N Delay (0..1440)
  - D/N Activation mode
    - 0 V = Day / 230 V = Night
    - 230 V = Day / 0 V = Night
  - D/N Behaviour
    - Inclusive / Starts charging at Night
    - Exclusive / Start charging at Night / Stops charging during the day

- **Load shedding mimi = 2 / Load shedding at Night**
  - D/N Activation mode
    - 0 V = Day / 230 V = Night
    - 230 V = Day / 0 V = Night

- **Load shedding 0 A = 3 / Load shedding at Night**
  - D/N Activation mode
    - 0 V = Day / 230 V = Night
    - 230 V = Day / 0 V = Night

7. HMI

Status	Colour
Station is ready	Green
Charging	
Charging management - lowering the power during a session	
Charging management - External signal - temporary charge stop (D/N INPUT)	Green breathing
Extended charging (interrupted charging, lowered power, etc.)	
Charging management - load shedding during a session	
Fault - Power failure	Off
Reservation	Solid purple
Fault - Defective cable - coding resistance absent or out of normative tolerance	
Fault - Defective communication between station and EV - Short circuit between CP and PE (CP = 0V - State E)	
Fault - 4x EV over-consumption - The EV charges at too high current (4x in the same charging session)	Fix red
Fault - Ventilation required - The EV requires a ventilation of the charging room	
Fault - Defective communication between station and EV - diode error (connection to something other than an EV)	
Fault - Invalid badge	Red/white 3 time then green fix
Fault - Charging rate on 6A in single-phase	
Fault - Charging rate on 10A in three-phase	Fix red
Fault - Charging rate on 6A in three-phase	
Locking of the socket + awaiting charging authorisation	Cycle blinking green / empty
Awaiting charging authorisation	
Awaiting cable disconnection	Blinking green / empty
Pause EV charging	Blinking 0,25s green / 0,75s empty

c.6 Advanced functions

• **Tethered cable:** The charging station will adapt its behaviour as it has a tethered cable.

• **Charge delay after blackout:** defines delay before a charge restarts after a blackout (1 to 600 seconds). If 0, random delay between 5-120 seconds.

• **Indoor/outdoor:** If outdoor is set, the charging station will ignore the EV ventilation request. If indoor is set, the charging station will stop the charge if the EV request ventilation.

• **EV41:** Setting that allow to start a charging session below 7A in single phase and 13A in three phases.

If the setting is EV41 is disabled = 0 (Default value):

mini current for one / three phase = 6A
Calculate the reactive current
In case reactive current > 2.5A (EV41 requirement), the charge stop
StatusNotification with OCPP status = SuspendedEVSE to indicate that the current is too low and MUST be increase.

If the setting Zoe_ph1 = 1 is set:

mini current for one phase = 7A
mini current for three phase = 13A

If the setting Zoe_ph2_kangoo_twingo = 2 is set :

mini current for one phase = 6A
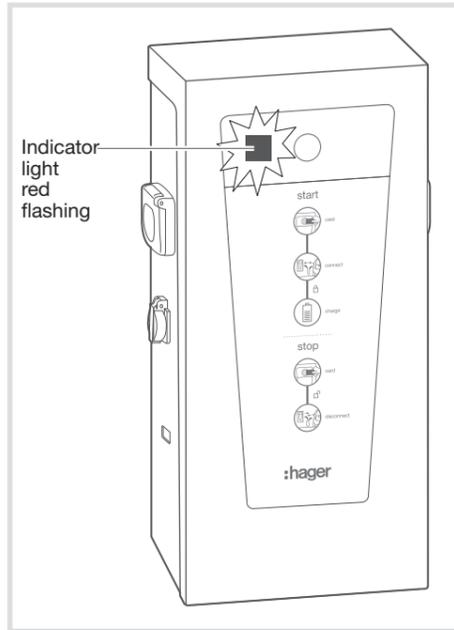mini current for three phase = 7A

c.7 Sub-metering

Two MID meters are integrated in the charging station. They are communicating through modbus RTU with the communication board. Address 1 is set two the left side meter and address 2 is set for the right side meter.

8. Malfunction

Indicator
light
red
flashing

In case of malfunction, the LED will be solid red. The description of the error is available in the diagnosis tab in the charging station configurator.

9. Electrical maintenance

As is the case for any other fixed electrical installation, it is important to verify the quality of the clamps at the various connection points of the installation during the annual inspection. They must be in line with the following torques:

Tightening torques

Circuit breaker:
2 N.m

Meter:
2 N.m

Contactor:
3 N.m

CP/PP:
0.4 N.m

PE/L1/L2/L3/N:
1.2 N.m

PE/L1/N:
0.8 N.m

Contactor:
0.4 N.m

Assembly
M3T2S:
0.6 N.m

M2 Assembly:
0.5 N.m

10. Technical data

Environmental conditions	
Operation temperature	-25°C to +40°C
Storage temperature	-25°C to +50°C
Humidity	5% to 95%
Protection	IP 54 – IK 10
Location of operation	Indoor and outdoor use and installation
Operating altitude	Maximal installation altitude : 2000m

Electrical characteristics	
Rated voltage (Un)	230V~ (1-phase Version) 230/400V~ (3-phases Version) +/- 10%
Rated current of the assembly (Ina)	2x32A
Rated current of one circuit (Inc)	32 A
Rated operational voltage (Ue)	230V
Impulse withstand voltage (Uimp)	4 kV
Insulation voltage (Ui)	230V~ / 400V~
Frequency (fn)	50 Hz +/- 1%
Maximum power load	7kW (1-phase Version) / 22kW (3-phases Version)
Class of electrical protection	Class 1
Socket outlet	Mode 3, T2S
Domestic socket	Mode 2
Overvoltage category	III

Mechanical characteristics	
Weight	30 kg
Height	765 mm
Breadth	355 mm
Depth	202 mm

Product consumption (no vehicles connected)	6,4 W
RFID frequency	125 kHz/2.4GHz
Pollution degree	3

11. Precautions for assembly

⚠️ Please refer to the maintenance manual before starting the installation of the charging station. The device is to be installed only by a professional electrician fitter according to local applicable installation standards. Conform to SELV installation rules.

All information pertaining to the installation (assembly, electrical connection and configuration), connection to the servers as well as the use and maintenance of the terminals are provided on the Hager website of your country.

EV supply equipment permanently connected to AC supply network.
Equipment for locations with restricted access and with non-restricted access.
Stationary equipment.
Surface mounted in wall and pole
Horizontal installation on ceiling or floor is not permitted
No removable parts without tools.

Information about adapter requirements according to IEC61851-1:

Vehicle adapters must not be used to connect a mobile vehicle plug to a vehicle connector socket.

Adapters placed between the EV socket and the EV plug should only be used if they have been specifically designed and approved by the vehicle manufacturer or the manufacturer of the EV power system and meet national requirements.

These adapters shall meet the requirements of this Standard and other relevant standards governing the parts of the adapter corresponding to either the EV plug or the EV socket.

Adapters shall be marked to indicate their specific conditions of use The adapters shall be marked to indicate their specific conditions of use permitted by the manufacturer, e.g. the IEC 62196 SERIES.

These adapters should not allow switching from one mode to another.

Ventilation supported

'Assembly, installation and configuration of electronic devices may only be carried out by an electrotechnically trained and certified specialist in accordance with the relevant installation standards.

Trained and certified specialist in accordance with the relevant installation standards of the country.

"All circuits must be installed completely in the same structure (from an electrical point of view) of the building."

After Servicing, maintenance or setting, the front cover need to be put back in place.

For use by ordinary and authorized persons.

Electromagnetic compatibility classification: other than residential (commercial, light industrial and industrial).

Enclosed assembly.

EVSE type: ACSEV

- locations with restricted access or non-restricted access

to be supplied with copper conductor only

Correct Disposal of this product
(Waste Electrical & Electronic Equipment).

EN

(Applicable in the Europaen Union and other European countries with separate collection systems).

This marking shown on the product or its literature indicates that it should not be disposed with other household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this device for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes of disposal.

Usable in all Europe C€ and in Switzerland