

CHARGING STATION

USER MANUAL

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KEEP TO USE IN THE FUTURE

Zielona Góra 2024

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1. IMPORTANT SAFETY INSTRUCTIONS / INSTRUCTIONS IMPORTANTES CONCERNANT LA SÉCURITÉ

1.1. SAVE THESE INSTRUCTIONS/CONSERVER CES INSTRUCTIONS:

- This manual contains important instructions for Models AXON EASY that shall be followed during installation, operation and maintenance of the unit.
- The descriptions and drawings contained in this User Manual are for informational purposes only. Due to continuous product improvement, the manufacturer reserves the right to make technical changes to the product to improve the performance of the device and to improve it without prior notice.
- Use of the charging station not in accordance with the recommendations of this User's Manual, instructions for use of commercial components, inconsistent with the technical characteristics, as well as the use of factors that do not comply with the installation requirements will result in the loss of warranty rights.

1.2. COPYRIGHT PROTECTION

This manual and the texts, drawings, photos and other elements contained therein are subject to copyright protection. Without the written permission of the manufacturer, it is prohibited to reproduce the contents of the manual in any form or manner (including fragments) and to use and/or transfer its contents to third parties. Violation of the above will result in the obligation to pay compensation.

1.3. PROTECTIONS SYSTEM



DANGER

Failure to take proper precautions will result in death or serious damage to health.

**WARNING**

Failure to take proper precautions can result in serious damage to health or loss of property.

**CAUTION**

It draws attention to an important piece of information about the product and its operation, the omission of which may result in improper operation of electric vehicle charging stations.

1.4.STANDARDS

The following are the directives and standards to which the charging station was made:

- UL 2202: Electric Vehicle (EV) Charging System Equipment,
- UL 2231-1: Personnel Protection Systems for Electric Vehicle (EV) Supply Circuits: General Requirements,
- UL 2231-2: Personnel Protection Systems for Electric Vehicle (EV) Supply Circuits: Particular Requirements for Protection devices for Use in Charging Systems,
- SAEJ1772: Electric Vehicle and Plug in Hybrid Electric Vehicle Conductive Charge Coupler,
- SAE J3400 North American Charging System (NACS) for Electric Vehicles
- UL 991: Standard for Safety Tests for Safety-Related Controls Employing Solid-State Devices,
- UL 1998: Standard for Safety Software in Programmable Components,
- FCC class A - Standard 47 CFR Part 15: RADIO FREQUENCY DEVICES - rules and regulations for EMC,
- NFPA 70: National Electrical Code, Article 625.
- Canadian Electrical Code, Part I, CSA C22.1.

1.5.GENERAL INFORMATION



DANGER

Dangerous voltages are present in the charging station. Failure to heed this warning, or failure to act in accordance with the instructions in this documentation, may result in substantial property damage, severe personal injury, or even death from electric shock.



WARNING

Failure to take proper precautions can result in serious damage to health or loss of property.



CAUTION

Only qualified personnel may work on the charging station. Such personnel must be thoroughly familiar with all the safety instructions contained in this documentation, the conditions, the method of installation and operation of the device, and the means of maintaining the device in good condition.

- Danger of electric shock! The charging station contains large capacitance values, so electrical voltage may persist inside the device after the power supply voltage is turned off.
- Children and bystanders should be prohibited from accessing the device.
- The device may be used only in accordance with the intended use specified by the manufacturer. Any modification and use of spare parts that are not sold or recommended by the manufacturer may cause electric shock or damage to the device.
- Correct operation of the device is related to proper storage, safe transportation to the installation site, and professional connection and maintenance of the device. Instructions on the above aspects are given in the following section of the documentation.
- This documentation should be kept near the device and made available to all users as needed.

- If it is necessary to take measurements at a live device, observe safety rules and use technically sound measuring instruments.
- Repairs to the device can only be performed by a person with an electrical state certificate and EVITP license (authorized service centers). Self-repair can lead to electric shock and significant property damage both during repair and in subsequent operation.
- The device requires an inspection every 12 months, which is a prerequisite for the safe operation of the device and the maintenance of the warranty.
- The device is equipped with an safety switch.
- Work on electrical equipment may be performed only by properly trained and authorized personnel.

**WARNING**

It is forbidden to make any changes in the settings of security settings and automation interlocks.

**CAUTION**

Keys to control cabinets must be in the possession of persons authorized to do so, and should be properly secured against retrieval by unauthorized persons.

1.6.SECURITY SYSTEM

The primary protection of the charging station from the power supply side is the automatic quick disconnection realized through fuse links, additional protection in accordance with standards UL 508, UL 2231-1 is a residual current circuit breaker with characteristic A, which serves to protect people from electric shock at direct and indirect contact, also reduces the consequences of damage to equipment, including the possibility of fire.

Protection against unwanted maneuvering of the fuse disconnecter is the padlock closure used in the disconnecter, which prevents accidental disconnection of the charging station's power supply.

On the charging connector side, an IT network arrangement is used in which all active parts are isolated from ground potential. In such a system, one ground fault does not pose an immediate danger. Galvanic separation is performed with transformers. An additional safety device is the output circuit insulation monitor, which checks the insulation level between the "DC+" conductor of the "DC-" conductor and the charging station ground. The electric vehicle is connected to the charging station ground when the charging connector is connected to the vehicle. The charging station monitors the insulation level of the vehicle during charging.

From the user's point of view, the basic protection is a housing made in the 1st class of protection (all accessible metal parts are connected to the PE protective conductor).

The charging station is equipped with specialized connectors: CCS Combo1(Type1), During charging, the plug is locked into the vehicle's socket, which prevents its removal and provides protection against electric shock.

SAE J1772-compliant communication protocols are responsible for the smooth and safe operation of the charging process. It has a number of implemented functions that allow quick disconnection of the vehicle in emergency situations.

1.7.WARNINGS REGARDING EXISTING RESIDUAL RISK

Although the manufacturer takes responsibility for the design and labeling of the device to eliminate hazards when using the device, there are some unavoidable risk elements.

When operating the device, the residual risk includes:

- contact with a hot surface,

During inspection and maintenance work, residual risk includes:

- contact with a hot surface,
- electric shock.

1.8.THE 5 SAFETY RULES



CAUTION

Disconnect completely - this means that the electrical system must be disconnected from live parts on all poles.

**CAUTION**

Protect yourself from accidental switching of voltage - effectively prevent accidental switching of voltage in the installation where work is in progress. This can be done by applying switch locks in place of unscrewed fuses.

**CAUTION**

Make sure there is no voltage in the installation - Is there actually no voltage left in the installation? Use a proper measuring/testing device, such as a voltage indicator, to check on all poles that the installation has been de-energized. Before you use the voltage indicator, make sure that the correct function is set in it.

**CAUTION**

Use grounding - if there is no voltage in the installation, connect the cables to the grounding system with a grounding device. Important: the relevant components must be grounded before they are shorted!

**WARNING**

Ensure protection from contact with neighboring live components - according to the five safety rules, neighboring components are those in the nearby zone. If it is not possible to disconnect electrical components in the nearby zone, take additional precautions before starting work. In this case, use insulating protective blinds or guards as protection against accidental contact.

1.9.DISTRIBUTION OF PICTOGRAMS INFORMING ABOUT RESIDUAL RISK

Signage and warning decals are used on the loader to prevent dangerous situations during operation and maintenance work.

The table below explains each pictogram, and the drawings show the location of the markings.

Pictogram	Description of the threat
	Electrical voltage warning.
	Hot surface warning.
	Electromagnetic field warning.



Figure 1 Distribution of pictograms informing about residual risk

2. INTRODUCTION

The instruction is a basic source of information related to the housings, employment areas, user's safety as well as charger operational conditions. Every user starting an installation, start-up and operation of the charger must familiarize himself/herself with this document and every time before starting using the equipment must check it's technical state.



WARNING

Note: The safety switch is used only to terminate charging in situations of danger to life or property. Use of the safety switch does not completely disconnect the power supply.



WARNING

Unlocking of the safety switch is done by twisting it and it is allowed only after removal of the causes of device failure.

3. FUNCTIONALITY

3.1. DESCRIPTION OF THE CHARGING STATION

The stationary DC charging station is designed for charging electric vehicles equipped with (depending on the selected configuration) Combo T1 and NACS charging connector. The charging station is built on the basis of high-frequency converter circuits, which provide a regulated current-voltage source with the possibility of direct communication with the vehicle's battery management system.

Stations with a capacity of less than 180 kW have the possibility of expansion.

Below are tables showing the maximum powers and possible charging options.

Table 1 Charging power variants of different types of Axon Easy charging stations

Axon Easy 60 (2xCCS1)			
Connector name	Maximum charging power [kW]		
Combo-1	60	-	30
Combo-1	-	60	30

Axon Easy 120 (2xCCS1)			
Connector name	Maximum charging power [kW]		
Combo-1	120	-	60
Combo-1	-	120	60

Axon Easy 180 (2xCCS1)			
Connector name	Maximum charging power [kW]		
Combo-1	180	-	90
Combo-1	-	180	90

Axon Easy 90 (NACS)	
Connector name	Maximum charging power [kW]
NACS	90

Axon Easy 150 (NACS)	
Connector name	Maximum charging power [kW]
NACS	150

Axon Easy 90 (CCS1)	
Connector name	Maximum charging power [kW]
Combo-1	90

Axon Easy 150 (CCS1)	
Connector name	Maximum charging power [kW]
Combo-1	150

Axon Easy 60 (2xNACS)			
Connector name	Maximum charging power [kW]		
NACS	60	-	30
NACS	-	60	30

Axon Easy 120 (2xNACS)			
Connector name	Maximum charging power [kW]		
NACS	120	-	60
NACS	-	120	60

Axon Easy 180 (2xNACS)			
Connector name	Maximum charging power [kW]		
NACS	180	-	90
NACS	-	180	90

Axon Easy 60 (CCS1 + NACS)			
Connector name	Maximum charging power [kW]		
Combo-1	60	-	30
NACS	-	60	30

Axon Easy 120 (CCS1 + NACS)			
Connector name	Maximum charging power [kW]		
Combo-1	60	-	30
NACS	-	60	30

Axon Easy 180 (CCS1 + NACS)			
Connector name	Maximum charging power [kW]		
Combo-1	180	-	90
NACS	-	180	90

3.2.BLOCK SCHEME

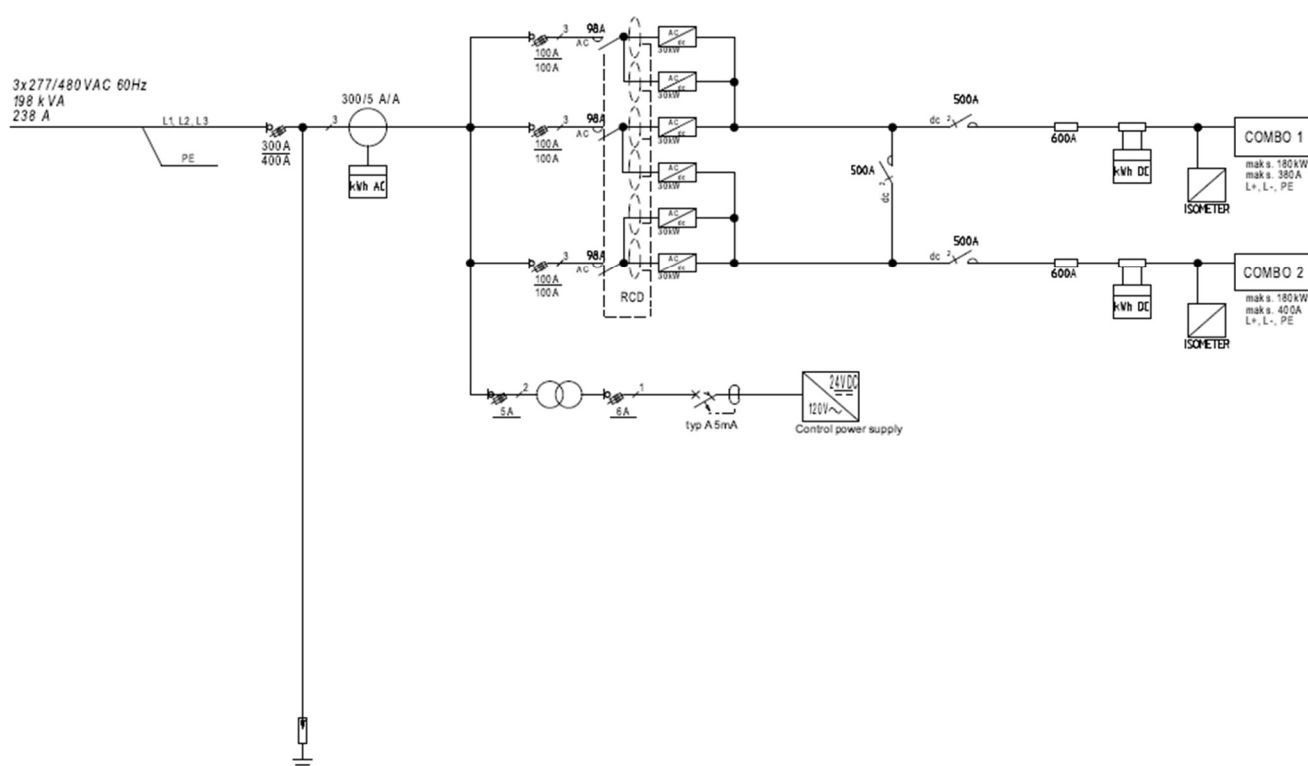


Figure 2 Block diagram of a two-output charging station (illustrative diagram)

3.3.USER INTERFACE

The charging station is equipped with a display and safety switch. The display is integrated with an RFID reader.

	CAUTION
Use the safety switch only in case of danger to life or property!	



Figure 3 Arrangement of connectors and user interface elements on the charging station (the layout of the buttons may actually change)

1	Advertising screen
2	Touch display integrated with RFID reader
3	Charging connector no. 2 Combo-1 (Type 1)
4	NFC payment terminal
5	Charging connector no. 1 NACS
6	Safety switch

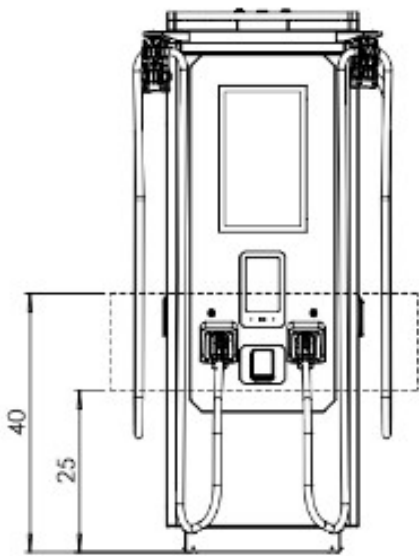


Figure 4 Height of the user interface



Figure 5 An example of LED lighting showing the operating status of the charging station at a given moment (overview view)

Top backlight:	Front lighting:
GREEN COLOR - lights up constantly – ready to connect, - flashing – initialization, plug connected.	GREEN COLOR - lights up constantly – ready to connect, - flashing – initialization, plug connected.
BLUE COLOR - lights up constantly – charging - flashing quickly –PreCharge, - flashes slowly – charging completed	BLUE COLOR - lights up constantly – charging (according to the vehicle's SoC), - flashing quickly – PreCharge, - flashes slowly – charging completed
RED COLOR - process error charging	RED COLOR - process error charging

3.4. PROXIMITY READER RFID

The charging station has been equipped with a proximity card reader. Each user has his own RFID card. Cards are used to identify the users of the device. The card should then be placed against the reader field on the display frame.

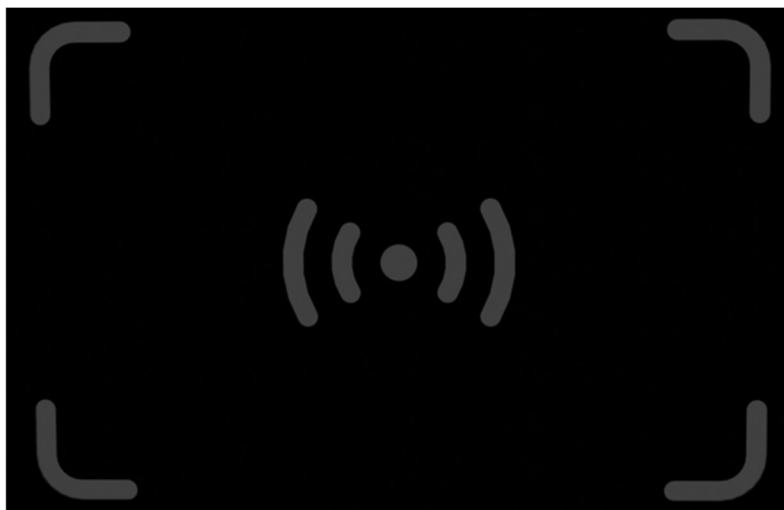


Figure 6 RFID proximity reader field

3.5. DESCRIPTION OF THE CHARGING CONNECTOR

3.5.1. COMBO T1 CHARGING CONNECTOR

The charging connector, which complies with UL 2251 / CSA C22.2 282-13, consists of two main parts: a plug with a wire that falls within the scope of the charging station and a socket located on the vehicle side. The charging connector is characterized by ease of use, with maximum safety for users. The plug has a built-in temperature sensor for the DC+ and DC- terminals, which is used to monitor the temperature of the contact, and if it overheats, charging is interrupted.

The charging connector is equipped with 7 contact contacts: positive pole (DC+), negative pole (DC-) protective contact (PE), communication contact (CP), communication contact (PS), single-phase AC (L1), Neutral (N).

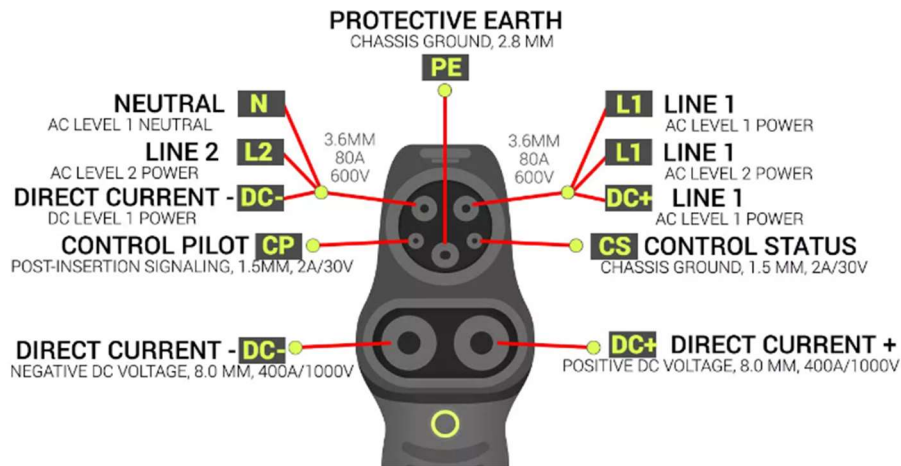


Figure 7 View of Combo-1 (Type 1) connector

3.5.2. NACS CONNECTOR

The charging connector, which complies with UL 2251 and J3400 standards, consists of two main parts: a plug with a wire that falls within the scope of the charging station and a socket located on the vehicle side. The charging connector is characterized by ease of use, with maximum safety for users. The plug has a built-in temperature sensor for the DC+ and DC- terminals, which is used to monitor the temperature of the contact, and if it overheats, charging is interrupted.

The charging connector is equipped with 5 contact contacts: positive pole (DC+), negative pole (DC-) ground contact (G), communication contact (CP), communication contact (PP).



Figure 8 View of the NACS connector

4. CHARGING PROCESS

Before charging for the first time, you must change the default PIN code in the terminal once, following the terminal's user manual.

4.1. CHARGING PROCESS START

The display will show "Ready". To start, select the charging connector and press the start button located on the touchscreen. You will then see a screen where you have to select the type of payment. There are three payment methods to choose from:

- using an RFID card,
- using a bank card,
- using a remote application.

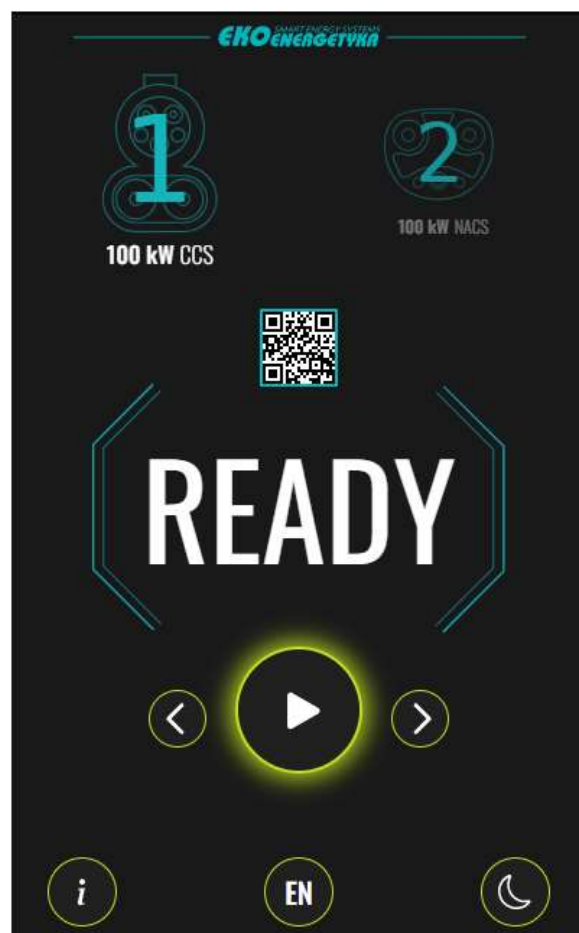


Figure 9 Home screen (illustrative view)

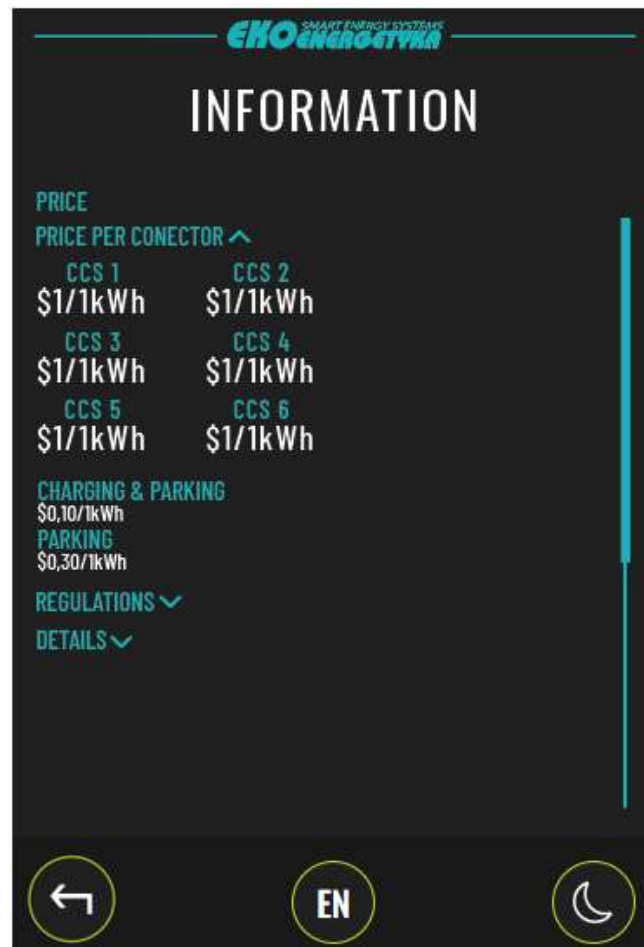


Figure 10 charging information (illustrative view)

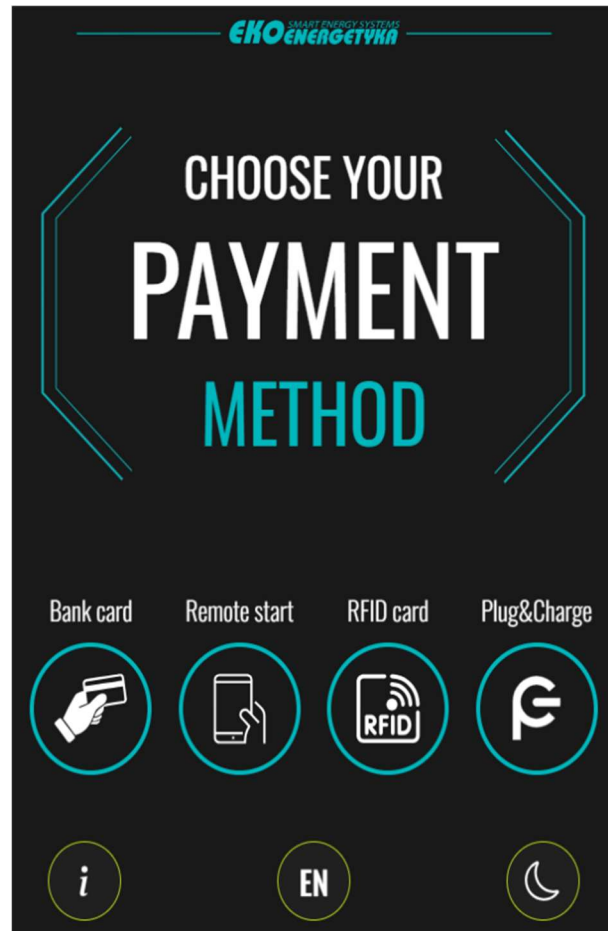


Figure 11 Selection of payment method (illustrative view)

After selecting charging and payment type:

- accept the regulations (required),

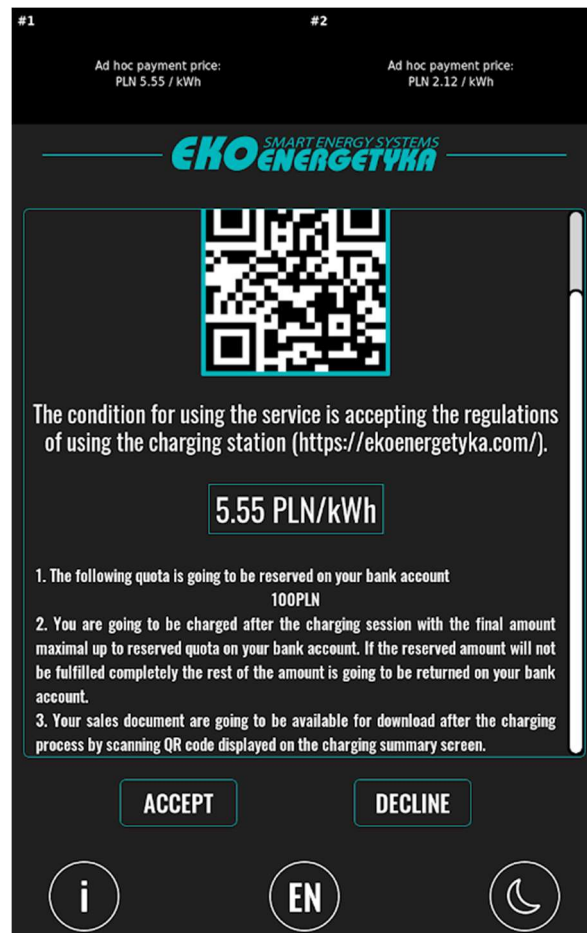


Figure 12 Charging regulations (illustrative view)

- choose the type of billing,

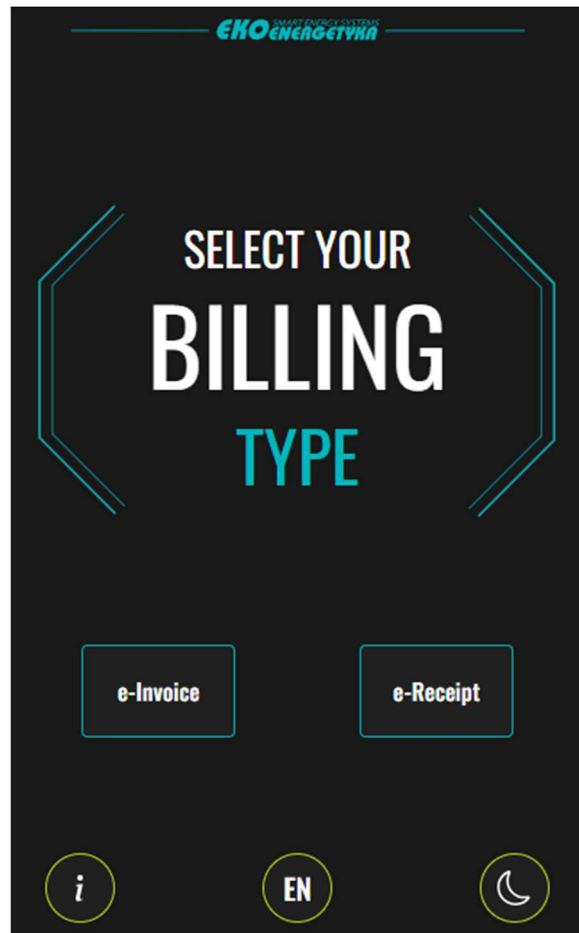


Figure 13 Selection of the type of settlement (illustrative view)

Upon completion of all transactions, the issued receipt, whether printed or electronic, should contain the following information:

- a) the total quantity of energy delivered with the unit of measurement,
- b) the total calculated energy sales price,
- c) the unit price of energy, and in the case of systems that allow the use of multiple unit prices of energy during a single transaction, the following additional information is required:
 - the start and end time of each phase, during which one of multiple unit prices was used,
 - the unit price used for each phase,
 - the total amount of energy delivered in each phase,
 - the total purchase price for the amount of energy delivered in each phase,
- d) the maximum rate of transmitted energy (i.e., maximum power) and type of current, e.g., 25 kW DC,

- e) any additional separate charges included in the transaction (e.g., parking time charges), including:
 - the time and date the service begins and the time and date the service ends; or the total time interval purchased and the time and date the service begins or ends;
 - the unit price applicable to the time service;
 - the total purchase price for the amount of time measured during the entire transaction;
 - f) the final total price of the entire transaction, including all items;
 - g) the unique EVSE identification number;
 - h) company name,
 - i) location of the company
- enter your e-mail address, in order to send an electronic invoice,

The image shows a mobile application interface for EKO Energetyka. At the top, the company logo is displayed. Below it, there are two input fields: 'Email address' and 'Name/Company Name'. The 'Email address' field is highlighted with a red border and contains the placeholder text 'Enter email'. The 'Name/Company Name' field contains the placeholder text 'Enter name or company name'. Below these fields is a 'Next' button. At the bottom of the screen is a virtual keyboard with letters, numbers, and symbols. The keyboard has a dark background with white text. There are also three circular icons at the very bottom: an information icon (i), a language icon (EN), and a theme icon (moon).

Figure 14 Field of entering your e-mail address (illustrative view)

- choose the maximum amount to charge the vehicle (unused amount will be refunded to your account),

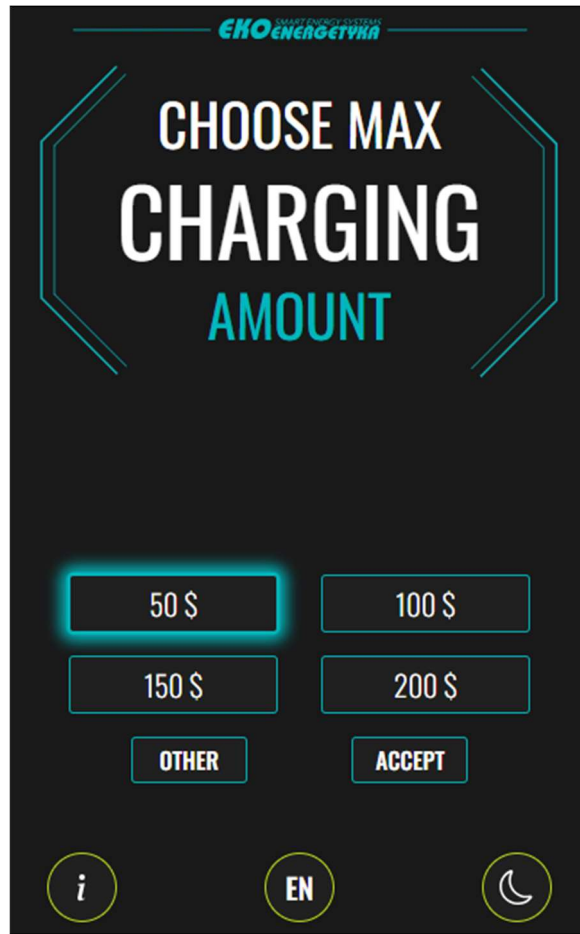


Figure 15 Selecting the maximum charging amount (illustrative view)

- the payment card must be placed in the payment terminal to make a payment (in case of problems with the payment, an error message will be displayed). After payment, connect the appropriate connector to the vehicle.

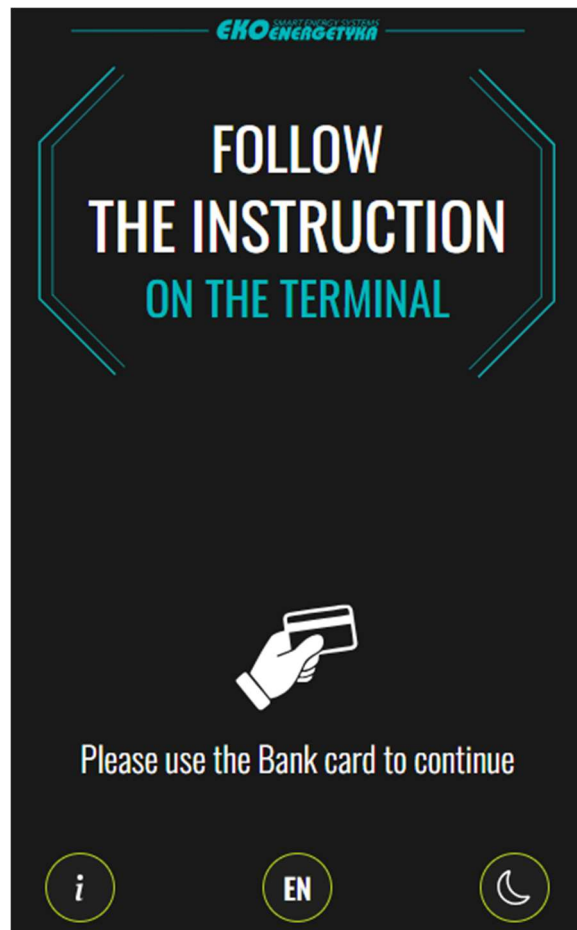


Figure 16 Screen view during payment (illustrative view)

After connecting the vehicle, the system checks the correctness of the connection by analyzing the continuity of the PE cable, establishing communication and measuring the insulation resistance of the entire installation.

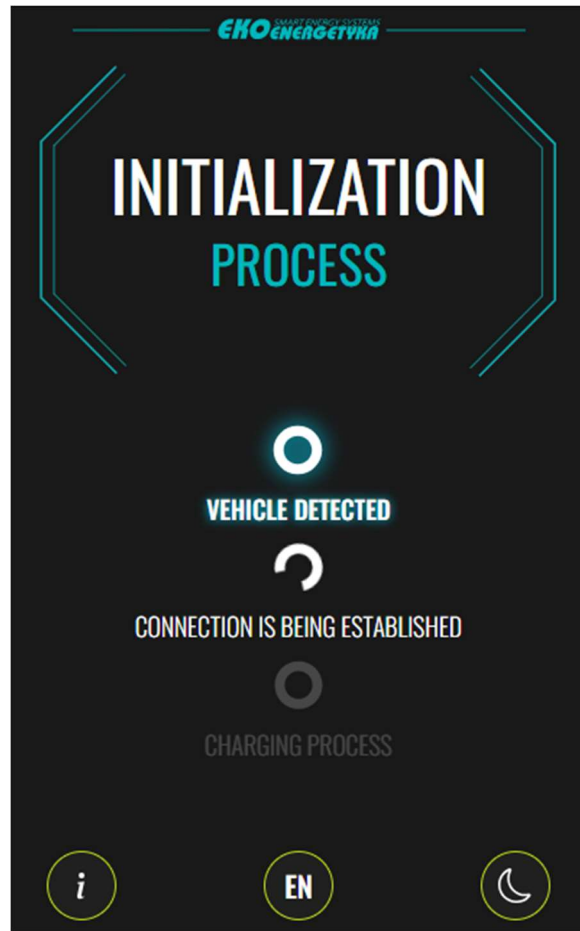


Figure 17 Screen view during connection verification (illustrative view)

Once the connection between the charger and the vehicle is successfully established, the system will automatically start charging and display details of the current charging process:

- current charging status,
- power currently consumed by the vehicle,
- current battery charge status,
- charge duration (time from the start of charging)
- total charging cost,
- charging cost per kWh

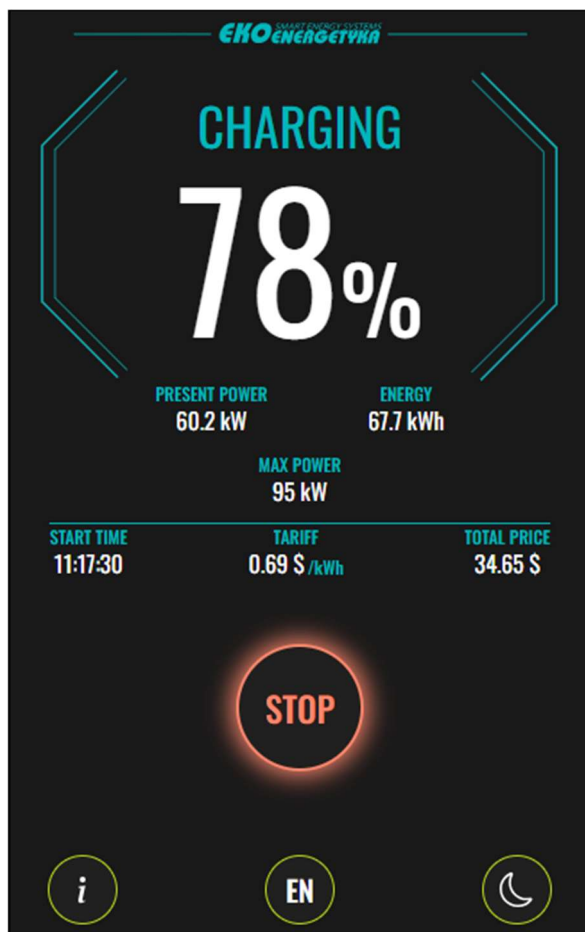


Figure 18 Sample screen view while loading (illustrative view)

The charging process can be interrupted at any time by pressing the "STOP" button located above the charging connector.

The occurrence of an error (caused by infrastructure or vehicle) during the charging process is indicated on the touchscreen and the Ambient LED lights up red, after which charging ends immediately. This means that the DC path contactors in the charging station and vehicle are disconnected.

At each stage of the loading process, you can select one of the languages: Polish, English, French, Spanish and German by touching the button with the country code in the ISO Alpha-2 format on the screen or by pressing the flag of the selected country.

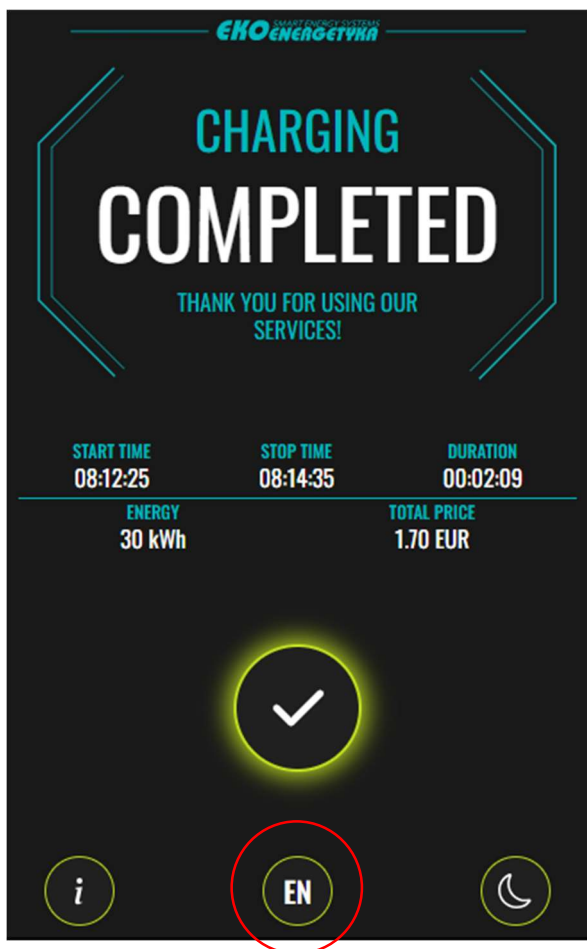


Figure 19 Marked place where you can change the language (illustrative view)

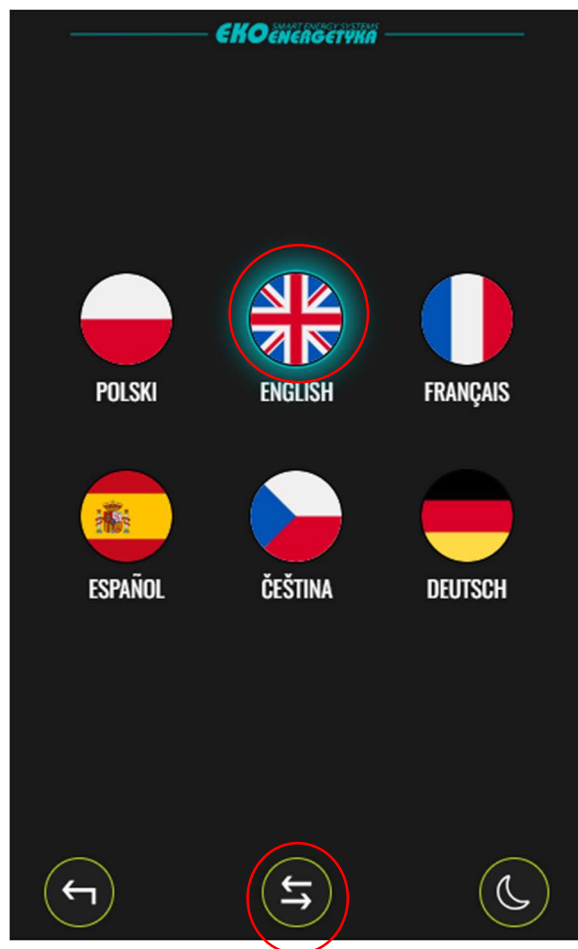


Figure 20 Screen view when selecting language (illustrative view)

4.2. Disconnection / charging stop

Charging is terminated by pressing the "STOP" button above the selected charging connector, or by interacting with the vehicle, and if the vehicle has been charged to the required level, the charging session ends automatically.

5. TECHNICAL DESCRIPTION

5.1. TECHNICAL SPECIFICATION OF THE DEVICE

Table 2 Technical parameters

Electrical parameters of the charging station		
Input AC	The way of connecting the power supply	Cable
	Network configuration	TS (L1,L2,L3,PE)
	Nominal voltage	277/480V AC ($\pm 10\%$)
	Frequency	60 Hz ($\pm 5\%$)
	Connector power	60 kW: 66 kVA 90 kW: 99 kVA 120 kW: 132 kVA 150 kW: 165 kVA 180 kW: 198 kVA
	Maximum cable cross-section	Maximum 2x500 MCM (240 mm ²)
	Minimum cable cross-section	60 kW: 2 (35mm ²) – 300 MCM(150 mm ²) 90 kW: 2/0 (70 mm ²) - 300 MCM(150 mm ²) 120 kW: 4/0 (120 mm ²) - 300MCM(150 mm ²) 150 kW: 300 (MCM) (150 mm ²) – 500 (MCM) (240 mm ²) 180 kW: 400 (MCM) (185 mm ²) – 500 (MCM) (240 mm ²)
	Efficiency	$\geq 95\%$ (under optimal working conditions)
	Input power factor	≥ 0.98 (for the output power $> 25\%$) - capacitive nature
	THDi	$\leq 5\%$
	Maximum power consumption in standby mode *depends on LED brightness	Without advertising screen: min. 55 W, max 90 W, average 65 W
		With advertising screen: min. 120 W, max. 160 W, average 130 W
	Overcurrent protection	Isolating switch
	Residual current circuit	RCD ≤ 20 mA , RCD 5 mA for control circuits
	Measuring circuit	Semi-indirect
	Overvoltage protection	T2 surge arrester

Axon Easy 60 kW (CCS1+CCS1 / NACS+NACS / CCS1+NACS)	Output DC	Maximum charging power	60 kW ($\pm 1.5\%$) or 2 x 30 kW ($\pm 1.5\%$)
		Connector type	2 x CCS Combo-1 (Type2/Mode4) or NACS + NACS or CCS Combo-1 (Type2/Mode4) + NACS
		Number of charging points in the station	Maximum 2
		Output voltage range	150 – 1000 V
		Maximum charging current	1 x 200 A ($\pm 1.5\%$) or 2 x 100 A ($\pm 1.5\%$)
		Voltage ripple	± 5 V
		Communication protocol	DIN 70121, ISO 15118
		Bidirectional current flow protection	built into the power module
		Protection from electric shock	IT circuit; Monitoring Insulation Device
		Measuring circuit	Semi-indirect
	Power modules	The power of a single module	30 kW
		Number of modules	2 pieces
	Other	Insulation system	High frequency transformers
		R _{iso} input-output	3,5 kV – 1 min.
Axon Easy 90 kW (CCS1/NACS)	Output DC	Maximum charging power	90 kW ($\pm 1.5\%$)
		Connector type	CCS Combo-1 (Type2/Mode4)
		Number of charging points in the station	Maximum 1
		Output voltage range	150 – 1000 V
		Maximum charging current	250 A ($\pm 1.5\%$)
		Voltage ripple	± 5 V
		Communication protocol	DIN 70121, ISO 15118
		Bidirectional current flow protection	built into the power module
		Protection from electric shock	IT circuit; Monitoring Insulation Device
		Measuring circuit	Semi-indirect
	Power modules	The power of a single module	30 kW
		Number of modules	3 pieces
	Other	Insulation system	High frequency transformers
		R _{iso} input-output	3,5 kV – 1 min.

Axon Easy 120 kW (CCS1+CCS1/ NACS+NACS/CCS1+NACS)	Output DC	Maximum charging power	120 kW ($\pm 1.5\%$) or 2 x 60 kW ($\pm 1.5\%$)
		Connector type	2 x CCS Combo-1 (Type2/Mode4) or NACS + NACS or CCS Combo-1 (Type2/Mode4) + NACS
		Number of charging points in the station	Maximum 2
		Output voltage range	150 – 1000 V
		Maximum charging current	1 x 250 A ($\pm 1.5\%$) or 2 x 200 A ($\pm 1.5\%$)
		Voltage ripple	± 5 V
		Communication protocol	DIN 70121, ISO 15118
		Bidirectional current flow protection	built into the power module
		Protection from electric shock	IT circuit; Monitoring Insulation Device
		Measuring circuit	Semi-indirect
	Power modules	The power of a single module	30 kW
		Number of modules	4 pieces
	Other	Insulation system	High frequency transformers
		Riso input-output	3,5 kV – 1 min.
Axon Easy 150 kW (CCS1/NACS)	Output DC	Maximum charging power	150 kW ($\pm 1.5\%$)
		Connector type	CCS Combo-1 (Type2/Mode4)
		Number of charging points in the station	Maximum 1
		Output voltage range	150 – 1000 V
		Maximum charging current	Combo-1: 400 A ($\pm 1.5\%$) NACS: 380 A ($\pm 1.5\%$)
		Voltage ripple	± 5 V
		Communication protocol	DIN 70121, ISO 15118
		Bidirectional current flow protection	built into the power module
		Protection from electric shock	IT circuit; Monitoring Insulation Device
		Measuring circuit	Semi-indirect
	Power modules	The power of a single module	30 kW
		Number of modules	5 pieces
	Other	Insulation system	High frequency transformers
		Riso input-output	3,5 kV – 1 min.

Axon Easy 180 kW (CCS1+CCS1/ NACS+NACS / CCS1+NACS)	Output DC	Maximum charging power	180 kW (± 1.5%) or 2 x 90 kW (± 1.5%)
		Connector type	2 x CCS Combo-1 (Type2/Mode4) or NACS + NACS or CCS Combo-1 (Type2/Mode4) + NACS
		Number of charging points in the station	Maximum 2
		Output voltage range	150 – 1000 V
		Maxiumum charging current	Combo-1: 400 A (± 1.5%) NACS: 380 A (± 1.5%)
		Voltage ripple	± 5 V
		Communication protocol	DIN 70121, ISO 15118
		Bidirectional current flow protection	built into the power module
		Protection from electric shock	IT circuit; Monitoring Insulation Device
		Measuring circuit	Semi-indirect
	Power modules	The power of a single module	30 kW
		Number of modules	6 pieces
	Other	Insulation system	High frequency transformers
		Riso input-output	3,5kV – 1 min.
Mechanical parameters			
Housing	Dimensions (H x W x D) with CMS		~ 83 x 40 x 41 inch
	User interface mounting height above ground level		~ 25 – 40 inch
	Base (length x width)		~ 24 - 28 inch
	Weight		~ 990 - 1540 lb
	IP protection degree		NEMA 3R
	Protection IK		IK 10
	Protection Class		I
	Cooling		Automatically turned on forced air cooling
	Sheathing		stainless steel
	Type of closure		Patent insert
User interface			
Control panel		Ad-hoc payment system, RFID reader, 10" touch screen, security switch	
Interface protection degree		IK 10	
Remote communication		OCPP 1.6-J, OCPP 2.0.1	

Other	
Certification	cETLus
Working temperature	-13 °F + 104 °F > 104 °F possible output power limitation
Ambient humidity	≤95% no condensation
Noise emission level	max. 60 dB(A)
Location of the charging station (WGS84)	Width:
	Length:

5.2.CHARGING STATION OUTPUT CHARACTERISTIC

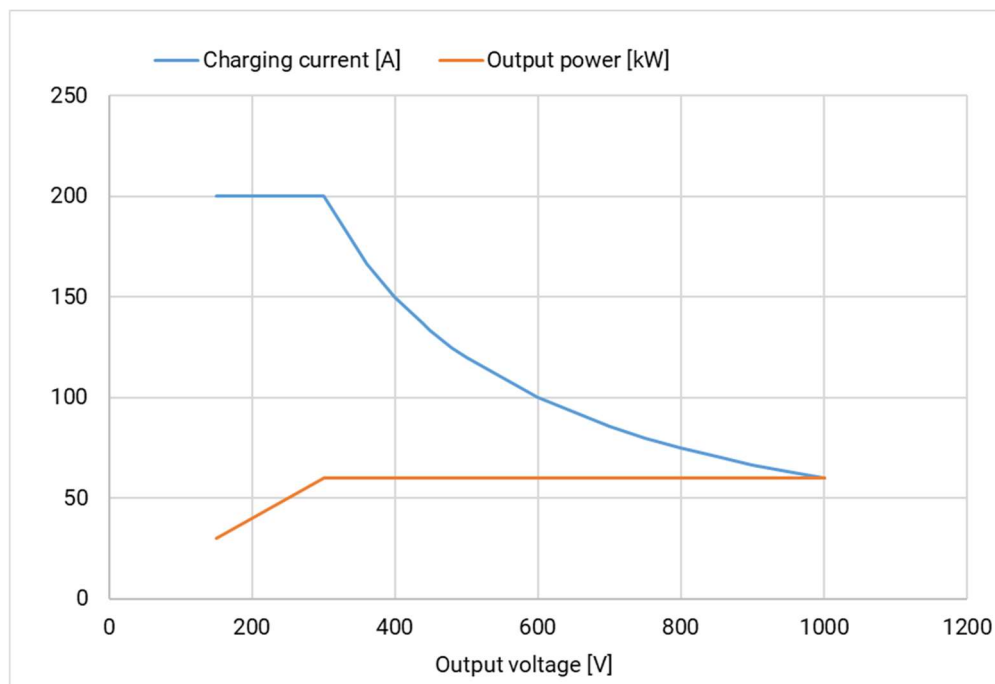


Figure 21 Output characteristics of the connectors NACS and Combo-1 60 kW (200 A)

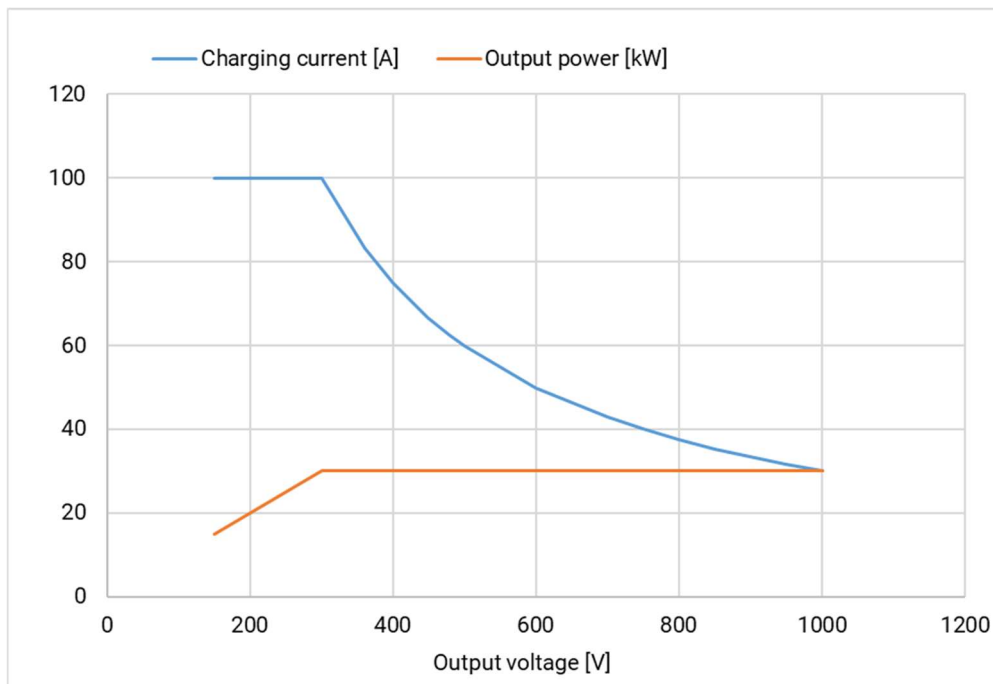


Figure 22 Output characteristics of the connectors NACS and Combo-1 30 kW (100 A)

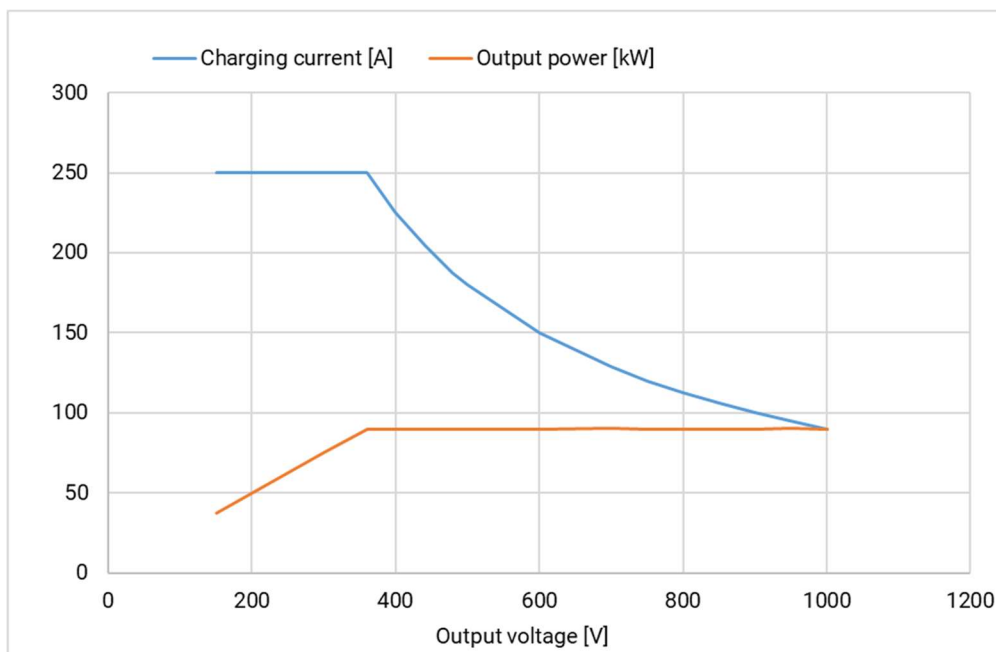


Figure 23 Output characteristics of the connectors NACS and Combo-1 90 kW (250 A)

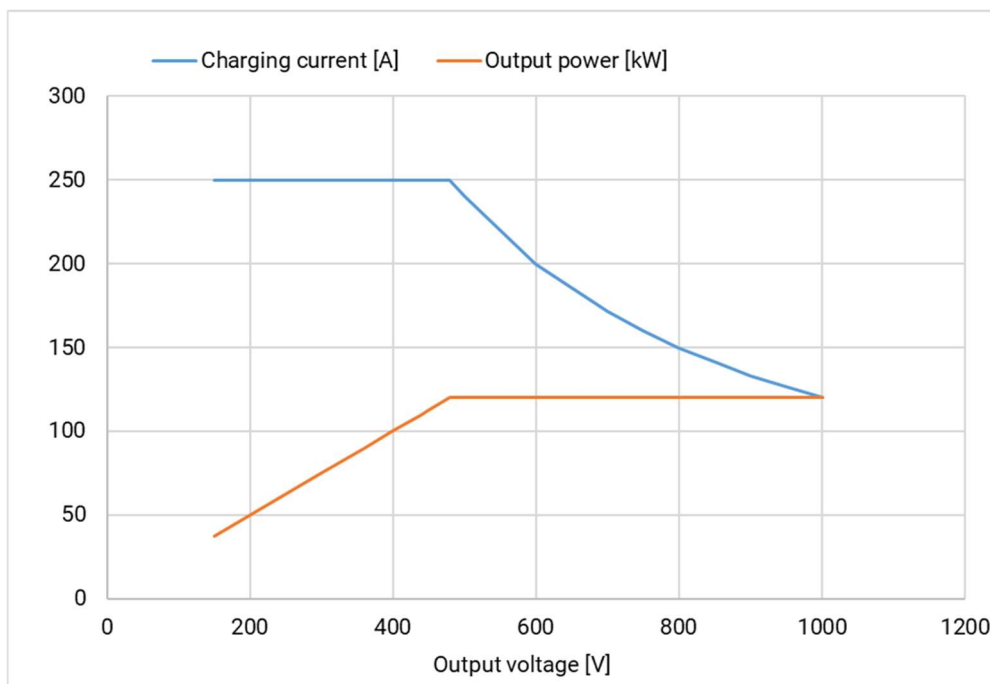


Figure 24 Output characteristics of the connectors NACS and Combo-1 120 kW (250 A)

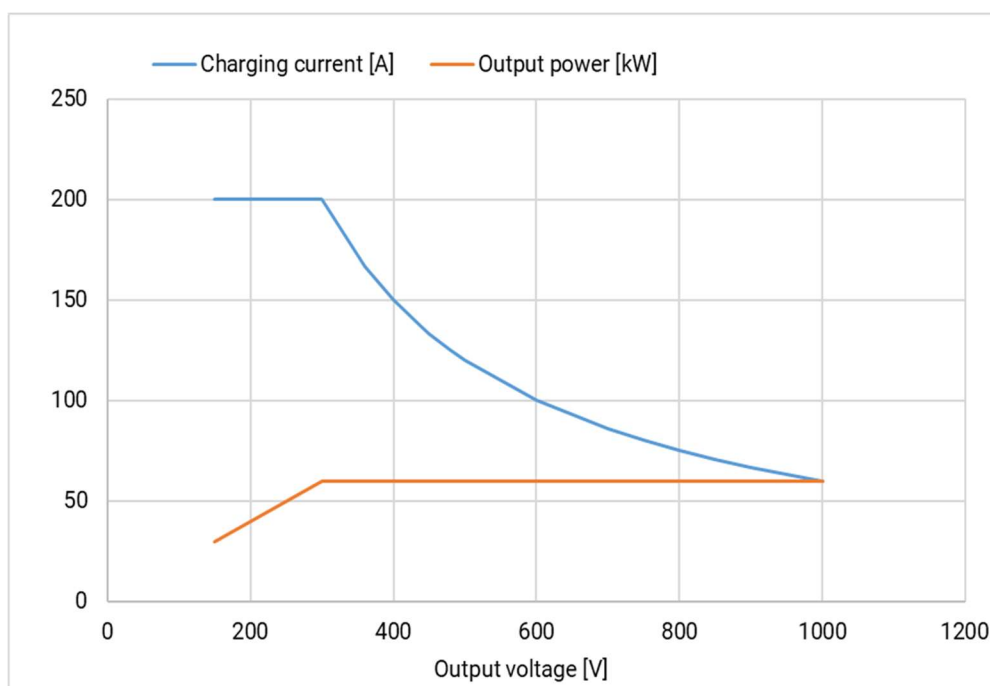


Figure 25 Output characteristics of the connectors NACS and Combo-1 60 kW (200 A)

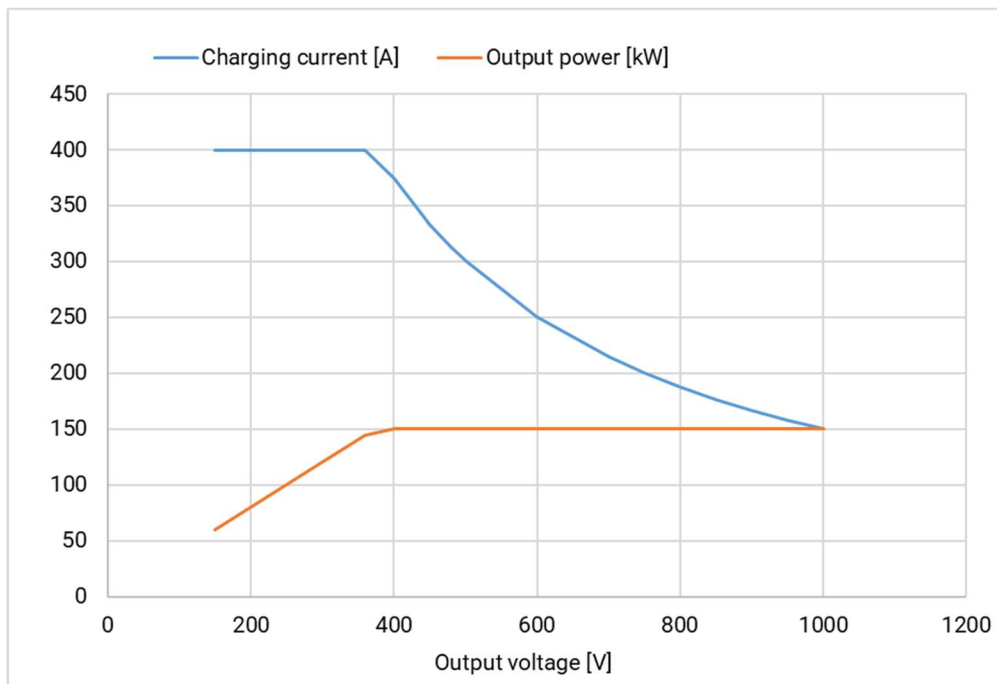


Figure 26 Output characteristics of the connector Combo-1 150 kW (400 A)

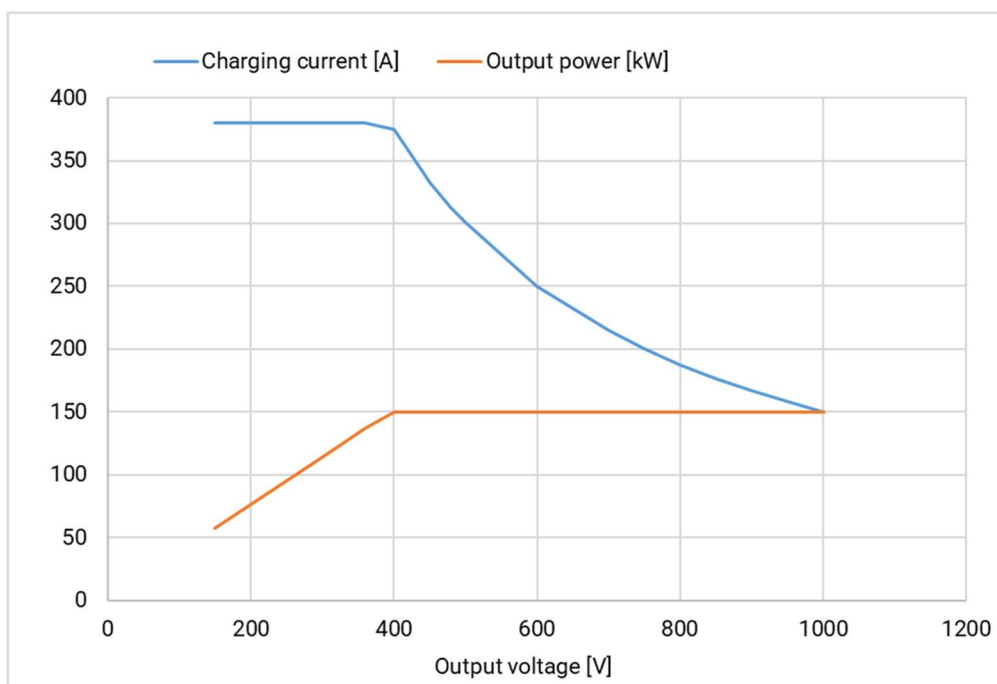


Figure 27 Output characteristics of the connector NACS 150 kW (380 A)

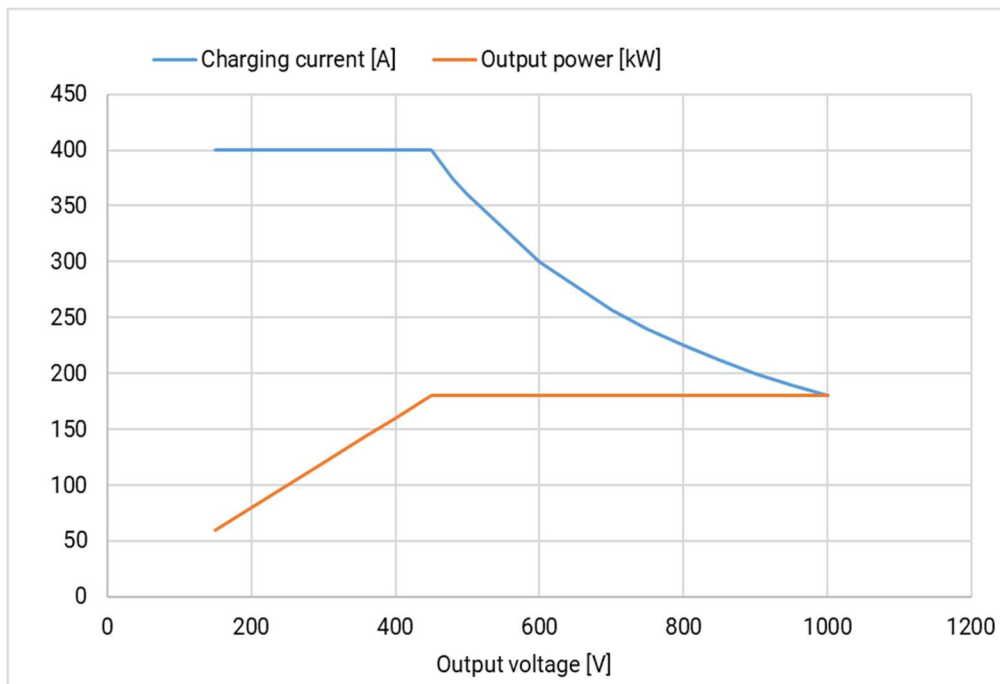


Figure 28 Output characteristics of the connector Combo-1 180 kW (400 A)

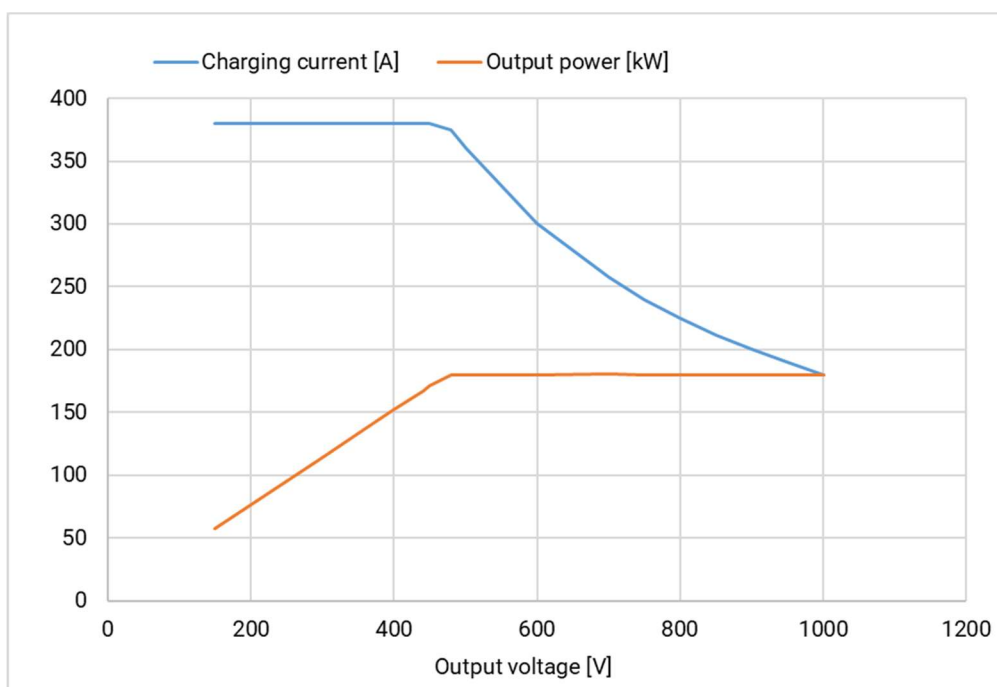


Figure 29 Output characteristics of the connector NACS 180 kW (380 A)

6. HOUSING CONSTRUCTION

6.1.DESCRPTION OF THE CONSTRUCTION OF THE CHARGING STATION HOUSING

The charging station has a modular structure. The outside walls, roof and maintenance door are made of powder-coated galvanized sheet. The maintenance doors in the charging station provide free, four-sided access to all the subassemblies of the device during servicing. Inside the charging station housing, there are separate chambers housing the distribution and protection components, as well as electrical power engineering.



Figure 30 General view of the housing
(in fact it may be slightly different)

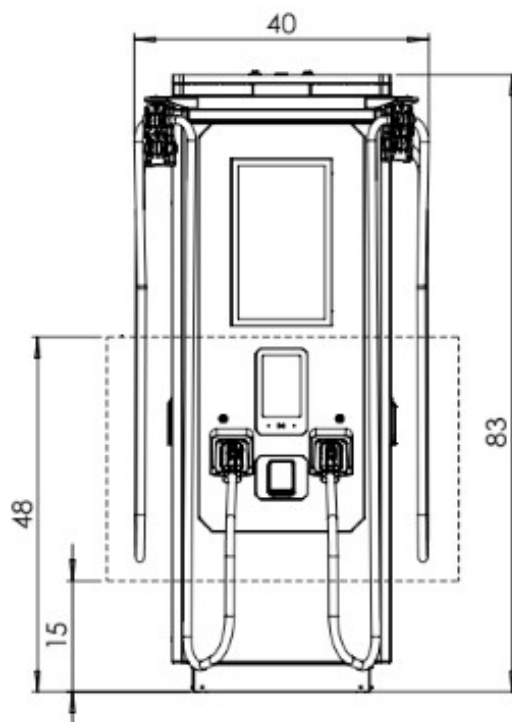
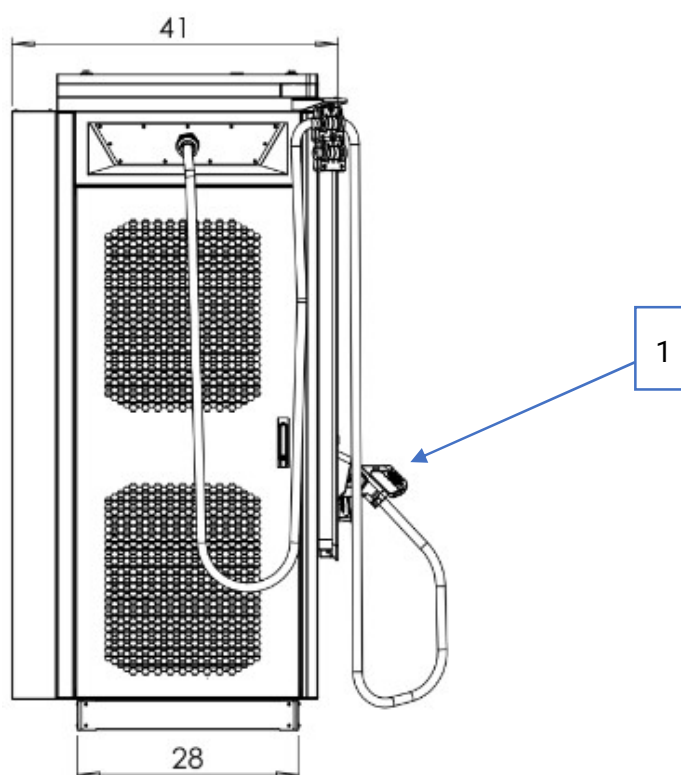


Figure 31 Housing structure - front view



1	Front of the charging station
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Figure 32 Housing design - side view

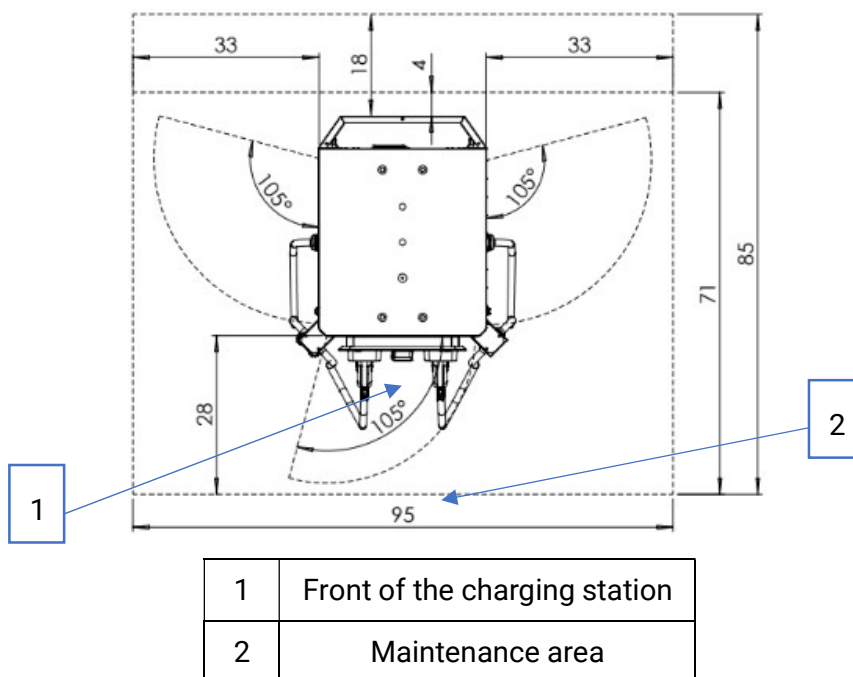


Figure 33 Maintenance area required - top view

6.2.AIR FLOW

The charging station has a ventilation system whose task is to supply ambient air to the station through the ventilation holes located on the side doors and to remove excess heat outside the device through the exhaust channel located on the rear panel of the housing.

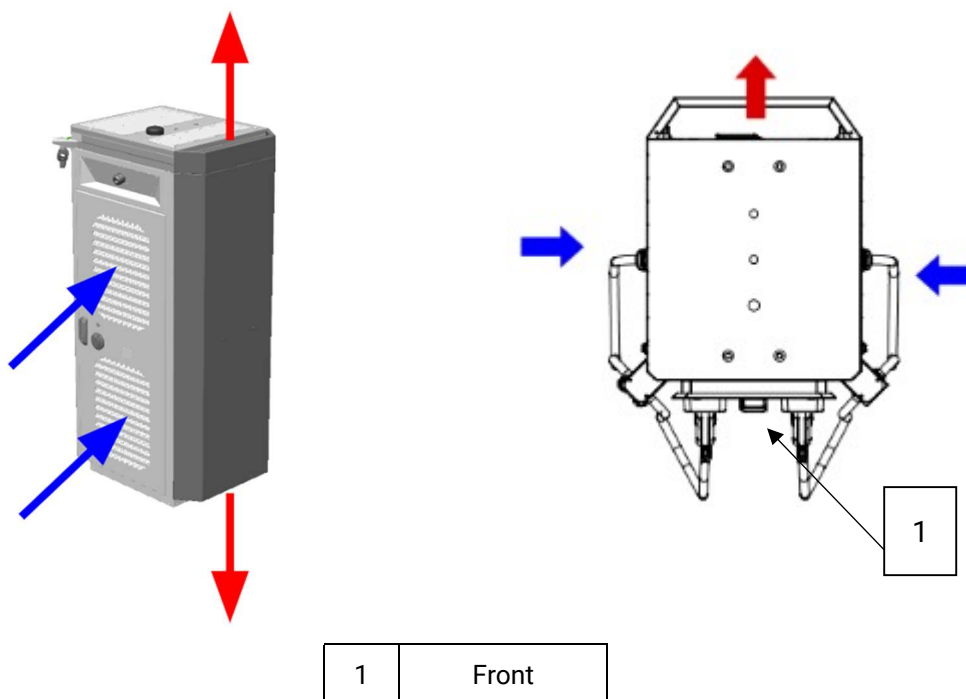


Figure 34 Air flow diagram - blue arrow cold air in, red arrow warm air out

**CAUTION**

The ventilation openings on the side doors and rear panel must not be covered. Free air circulation must be ensured to ensure proper ventilation of the device.

6.3.CMS (CABLE MANAGEMENT SYSTEM)

The equipment of the charging station is a cable management system, which allows to keep the DC cable in optimal conditions of use by securing it against contact with the ground. This protection is a handle mounted on the front upper corners of the housing, which keep the charging cable above the ground.



Figure 35 View of the housing with CMS system (illustrative view)

6.4.THE NAMEPLATE

There is a nameplate on the housing of the device, which is used to identify the charging station. The figure below shows the location of the nameplate on the charging station and its possible appearance.

The nameplate must be located at a height of 40 inches from the ground of the foundation.



Figure 36 Axon Easy charging station nameplate location (illustrative view)

1	Charging station AXON EASY	2	
3	AXE-S2B0-604048021-0010D703-500010XXX0 SERIAL NUMBER: QP-7232-1223-0-651-EKO-VER.A21		
4	UCN: EKO_C_24_001_1	5	EKO ENERGETYKA SMART ENERGY SYSTEMS Ekonoenergetyka Polska S.A. ul. Nowy Kalisz - Rozewjowa 7A 66-002 Zielona Góra
6	PRODUCT No: 3-21-52.0197-XXXX Conforms to UL STD 2202 Certified to CSA STD C22.2#346 WORK TEMP: -25°C to 40°C NEMA Type 3R		
7	MANUFACTURED IN POLAND 07/2024 66-002 Zielona Góra		
8	AC INPUT: 480 VAC; 3 PHASE 238 A max 198kVA 50/60 Hz		
9	DC INPUT: - - - -		
10	DC OUTPUT: 150-1000 V 7.5-400 A 180kW max -		
11	CABEL DETAILS 1: C-HVCOAEM400AL10000 CABEL DETAILS 2: C-HVCON1MB380APL10000U MIN MEASURED QUANTITY: 0,1 kWh		
12	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1. this device may not cause harmful interference, and 2. this device must accept any interference received, including interference that may cause undesired operation.		
13	CAUTION: Risk of electric shock, do not remove cover.		
14	No user serviceable parts inside. Refer servicing to qualified service personnel.		
15	MISE EN GARDE: Risque de choc électrique, ne pas retirer le couvercle. Aucune pièce à l'intérieur n'est réparable par l'utilisateur. Consulter du personnel qualifié pour effectuer l'entretien.		
16	WARNING: More than one live circuit. Supply wiring must be fully disconnected before servicing. Do not use this equipment if damaged. This equipment is intended only for charging vehicles not requiring ventilation during charging.		
17	AVERTISSEMENT: Plusieurs circuits sous tension. Le câblage d'alimentation doit être complètement débranché avant toute intervention. N'utilisez pas cet équipement s'il est endommagé. Cet équipement est destiné uniquement à la charge de véhicules ne nécessitant pas de ventilation pendant la charge.		
	WARNING: To reduce the risk of fire, replace only with same type and ratings of fuse.		
	MISE EN GARDE: Pour réduire le risque de feu, remplacer uniquement par un fusible du même type et de mêmes caractéristiques nominales.		
	CAUTION: Have defective cords or wires replaced immediately by a qualified service person.		
	ATTENTION: Les cordons ou fils électriques défectueux seront immédiatement remplacés par une personne qualifiée pour effectuer l'entretien.		
	WARNING: This equipment is intended only for charging vehicles not requiring ventilation during charging. See Vehicle Owner's Manual.		
	MISE EN GARDE: Cet appareillage est conçu uniquement pour les véhicules dont la recharge n'exige pas de ventilation. Consulter le Manuel du propriétaire du véhicule.		

Figure 37 The nameplate (overview view)

Data on the nameplate	
1.	Charging station name – device model.
2.	Mark of the company accrediting the charging station
3.	Catalog code
4.	QP number – serial number of the device.
5.	UCN – internal certification number
6.	Year of manufacture - the year of manufacture of the device.
7.	Finished product index – identifies the device model series.
8.	Compliance of charging stations with certification to standards
9.	Device operating temperature range.
10.	IP protection level.
11.	AC input – contains data: - Supply voltage [V], - Maximum input current [A max], - Connected power [kVA], - Frequency [Hz].
12.	DC input – contains data: - Supply voltage [V], - Maximum output current [A max], - Maximum AC output power of the charger [kW],
13.	DC output – contains data: - Maximum DC output voltage [V max], - Maximum DC output current [A max], - Maximum DC output power of the charger [kW].
14.	Catalog code of the charging cable used
15.	Minimum size of energy transmission
16.	FCC records
17.	User and service information

6.5.METERING SEAL FOR CERTIFIED OUTPUT CURRENT METRES

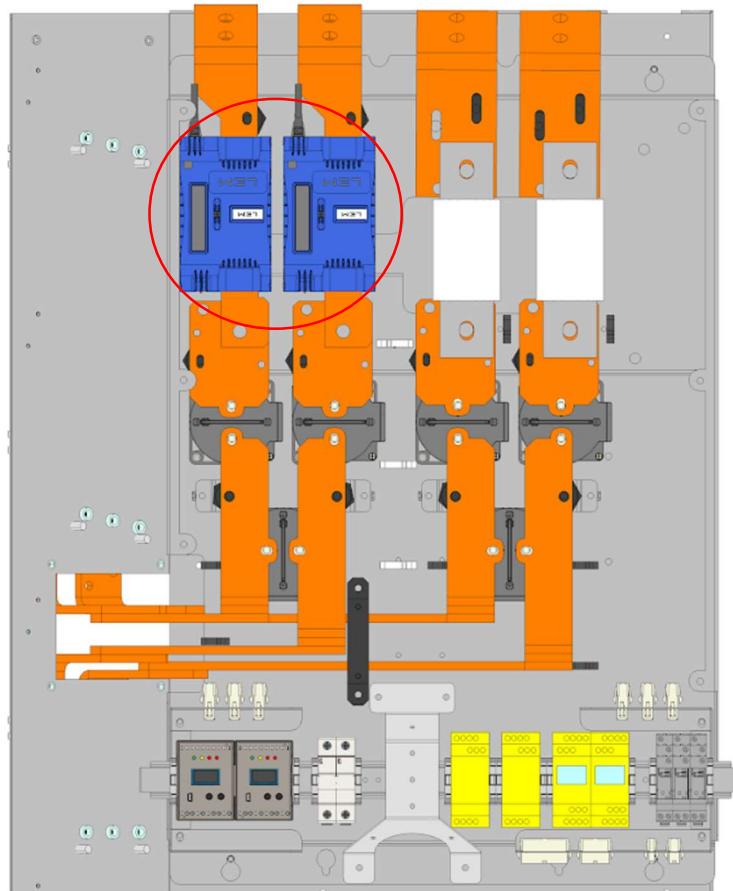
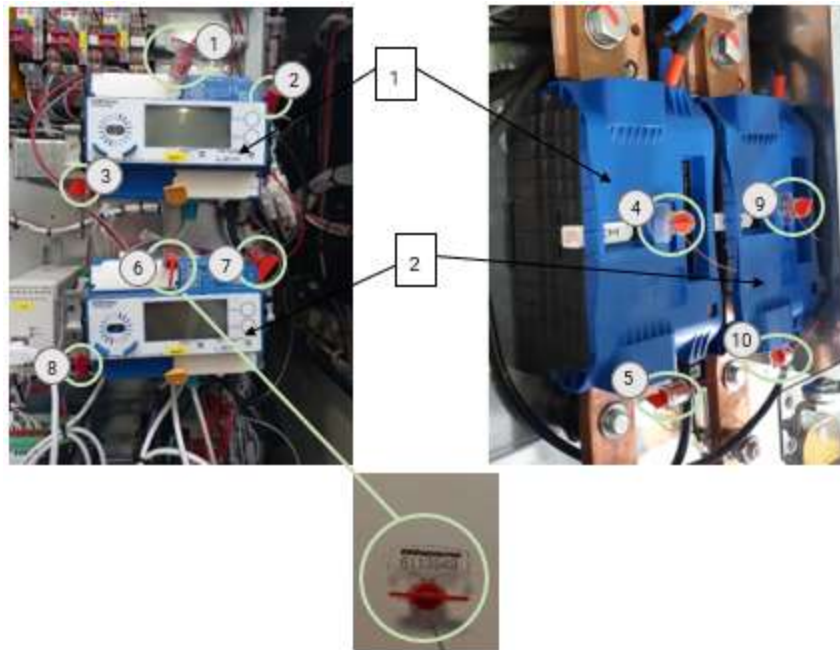


Figure 38 Location of output current meters at the charging station



1	Counter no. 1
2	Counter no. 2

Figure 39 Location of seals on output current metres

Table 3 Numbering of seals on output current metres

Seal No.	Counter No.
1, 2, 3, 4, 5	Counter no. 1
6, 7, 8, 9, 10	Counter no. 2

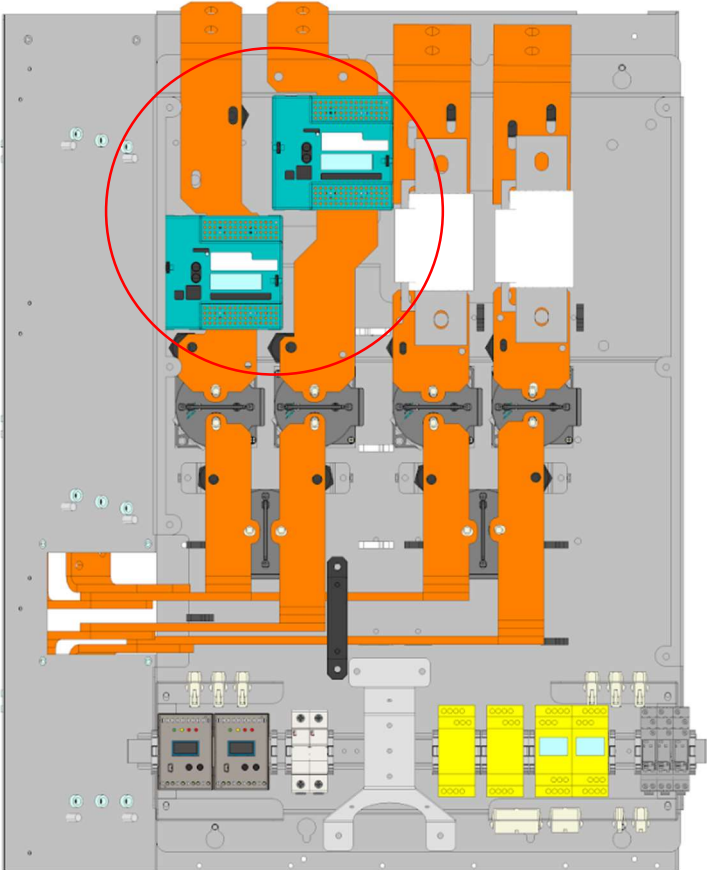
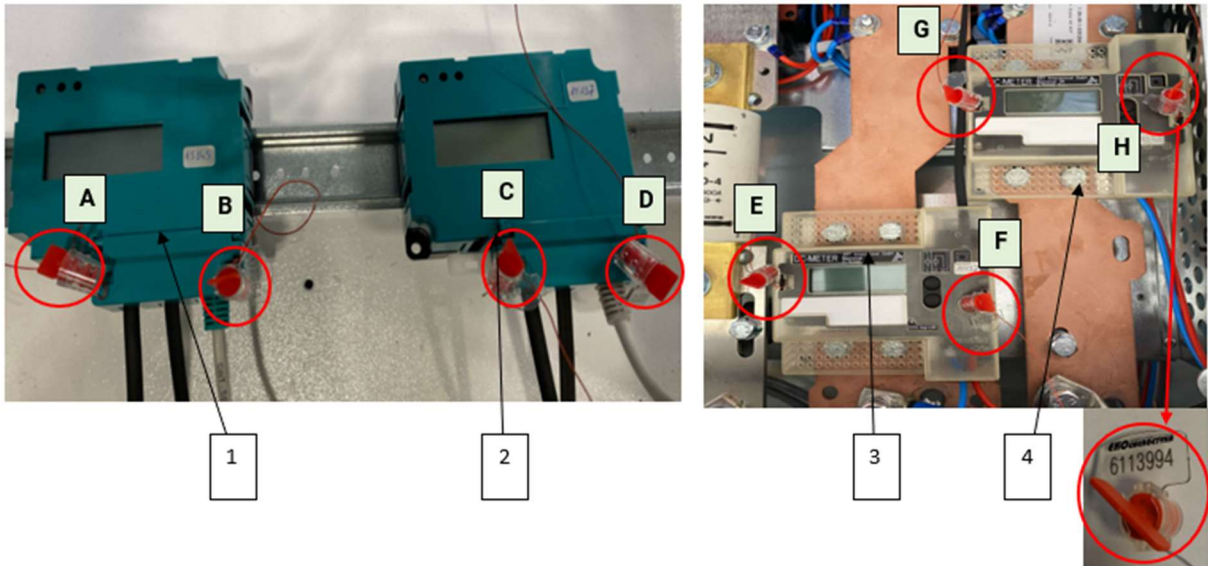


Figure 40 Location of seals on meters



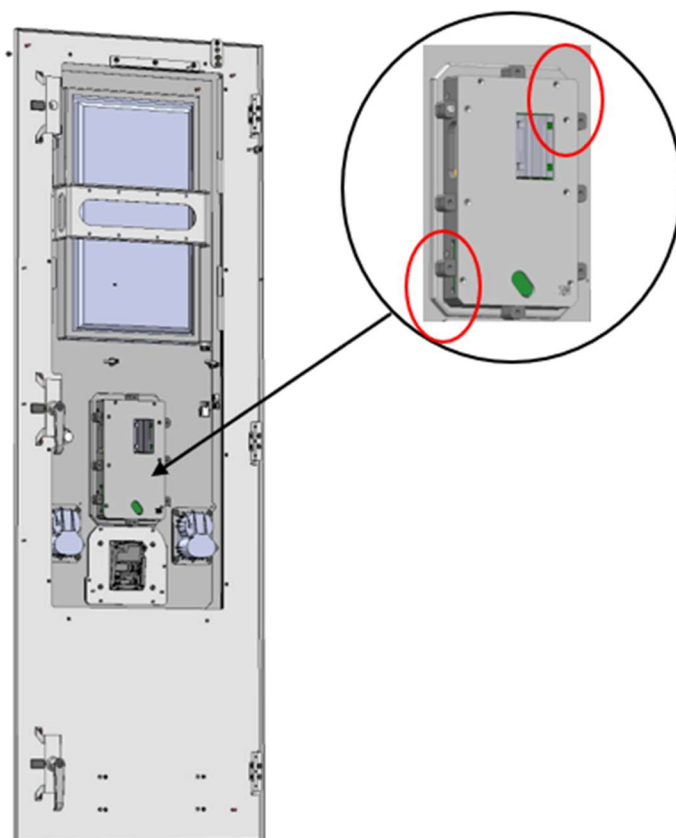
1, 3	Counter No. 1
2, 4	Counter No. 2

Figure 41 Location of meters

Table 4 Numbering of seals on meters

Seal No.	Counter No.
A, B E, F	Counter no. 1
C, D, G, H	Counter no. 2

6.6.MEASURING SEAL ON DISPLAY

**Figure 42** Location of measurement seals on the display

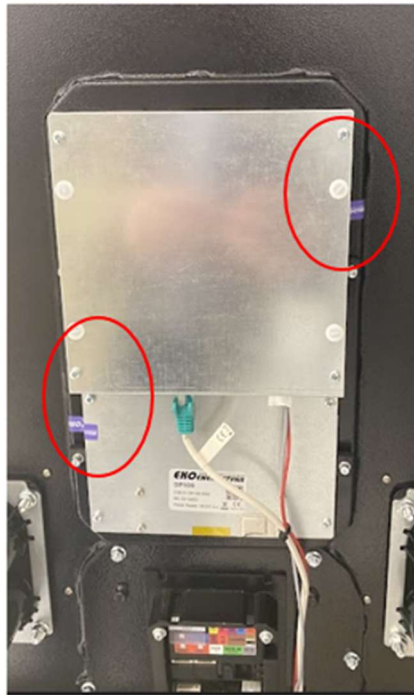


Figure 43 Location of measurement seals on the display

6.7.PROTECTION AGAINST MECHANICAL DAMAGE

To prevent mechanical damage to the charging station anti-ram protection should be used. The protection must be adapted to the location and surroundings of the station, and to the extent associated with the expected risk of being hit by moving vehicles.

7. TRANSPORT AND STORAGE

7.1. TRANSPORT OF THE CHARGING STATION

This section specifies the recommended methods of transporting the charging station. The warnings are addressed to the fitters and transport truck operators.

When using handing equipment (e.g. HDS, truck) – the staff should use safety helmets and protective footwear. In order to avoid crushing, loading and unloading should be performed in a manner preventing the hazard of the staff present between lifted/lowered load and, for instance, vehicle side or another fixed structural element.

Loosen the bolts securing the device to the pallet only after the sling is hooked to the transport ears and the crane cables are tightened.

In order to maintain safety, observe the unloading sequence specified in this guide.

Store in the working position in a place that is dry, clean and free from corrosive (aggressive) atmosphere and not exposed to direct sunlight.

Be sure to keep the lift as low as possible.



CAUTION

The charging station is designed to be transported in the working position. Attempting to transport and store in any other position risks mechanical damage.



CAUTION

When lifting the charging station, the angle of the belts must not be greater than 30°!

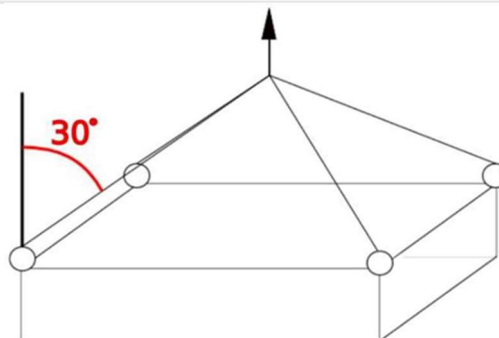


Figure 44 Strap inclination angle

**CAUTION**

There are transport bushings on the roof of the charging station, to which the original transport handles should be attached for lifting the device and securing it during transport.

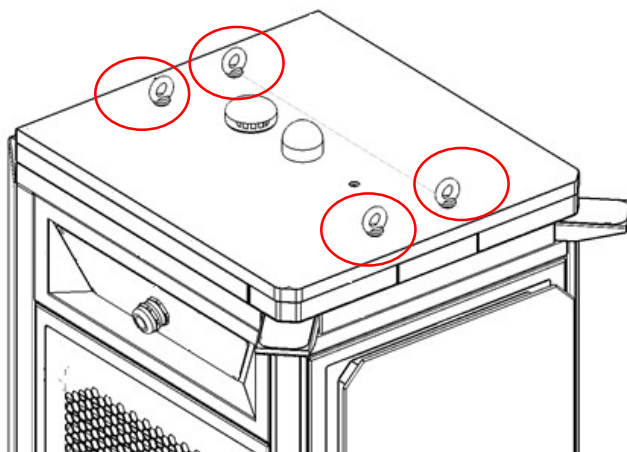


Figure 45 Transport sleeves

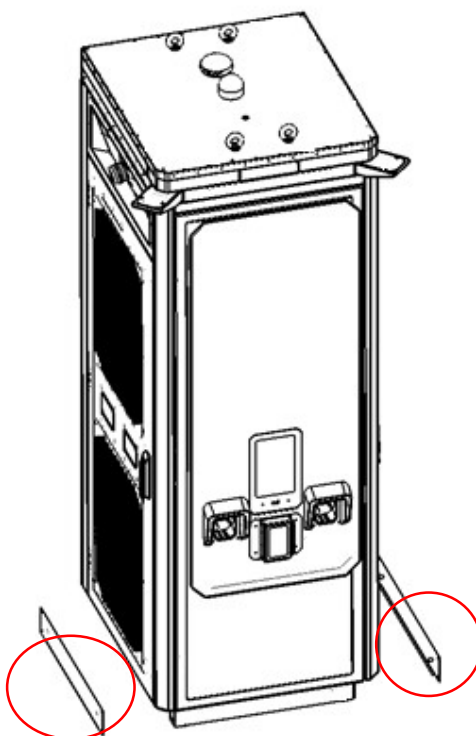
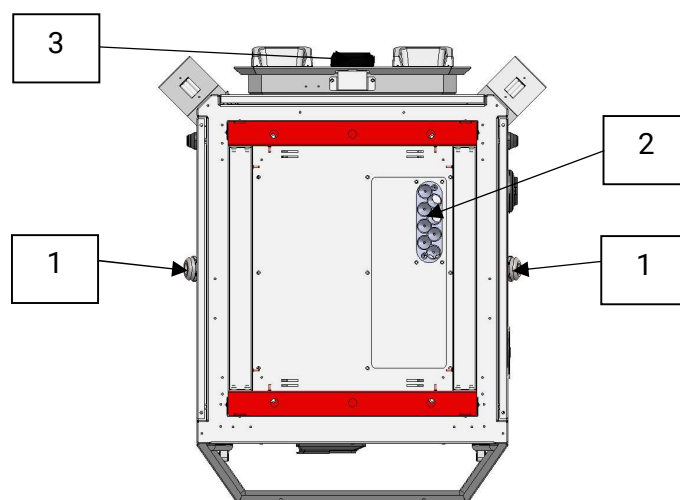


Figure 46 Dismantling the plinth plugs

In the pedestal there is a grommet for the introduction of power. It is a rubber grommet MC10 2 x 0,28 inch – 0,47 inch / 8 x 0,39 inch – 1,18 inch IP54 UL94 V0.



1	DC output
2	AC input
3	Front of the charging station

Figure 47 Components of the charging station base

7.2.STORAGE OF THE CHARGING STATION

Store in a dry place and away from direct sunlight in the working position.

8. INSTALLATION AND START-UP

8.1. PLACE OF INSTALLATION OF THE CHARGING STATION

- The location of the device should take into account the degree of protection (IP) and operating conditions that are within the limits permitted for this type of equipment.
- Avoid exposure to high temperatures as they may damage the station.
- If possible, it is recommended to place the charger in a place where it is protected from direct sunlight, which will prevent overheating and faster wear of technical components.
- It is necessary to ensure free air flow to and from the device to ensure adequate ventilation.
- Installation must comply with NFPA 70, the Canadian Electrical Code and local codes.

8.2. INSTALLATION OF THE CHARGING STATION ON THE FOUNDATION

When installing the device, follow the following procedure and local regulations. The installation of the device can be divided into the following steps:

	WARNING
Before attempting to install or commission the charging station, the user must ensure that he has read and followed the instructions for its operation and safe use.	
	WARNING
All service repairs and maintenance, as well as initial start-up, must be performed by a person with an electrical state certificate and EVITP license.	
	Opening the doors or side panels of charging stations is a risk of exposure to dangerous voltage.

- The installation of the charging station must not be carried out in a commercial garage (auto repair shop) and closer than 20 inches from an external motor fuel dispenser.
- Preparation of the work site - the installation site should be adequately protected from unauthorized access,
- Conduct a visual inspection - check the inside of the station for mechanical damage that may have occurred during transport, and check for any components that do not belong to the charging station. Also, check that there is an appropriate length of power cable protruding from the foundation. The power cable should protrude from the foundation to a height of min. 59 inches (*Fig. 49*). The power wire should be class: AWG, 60°C cooper wire.

**WARNING**

The use of charging stations in a public place - collision protection must be used, which must be adapted to the location and surroundings of the station, and to the extent related to the expected risk of being hit by moving vehicles.

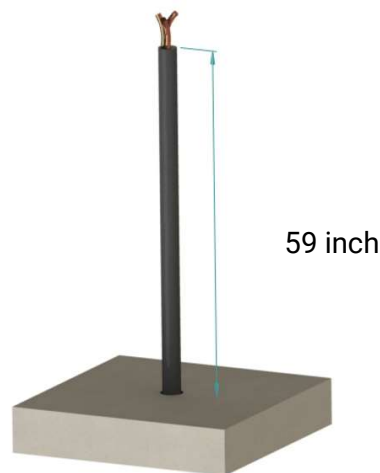
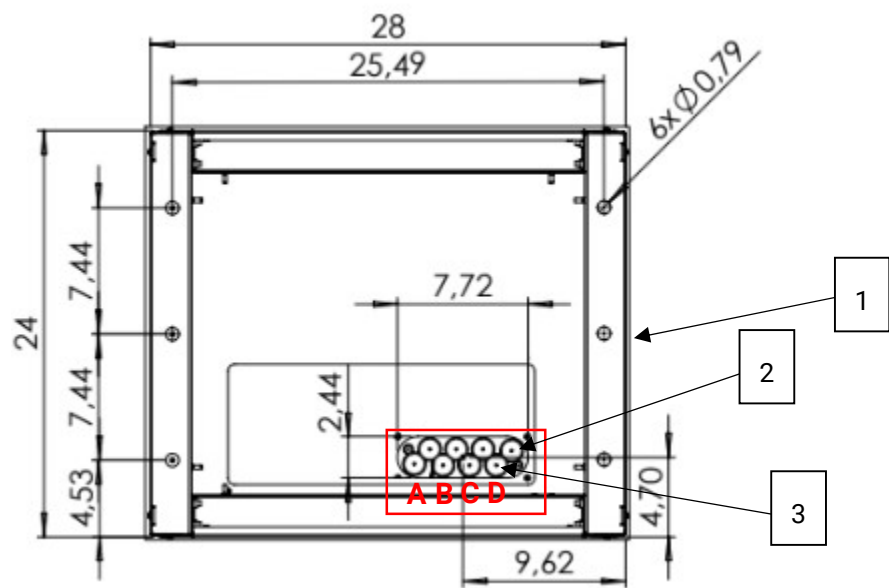


Figure 48 The height of the charging station supply cable above the foundation

- Make a check on the height and spacing of the galvanized threaded rods of the foundation - the length of the threaded rods $\frac{5}{8}$ "-11 UNC [M16 UE] - pieces 6 should be about 2,4 inch, shorten if necessary (*Fig. 50*). In turn, the spacing of the pins should agree with the spacing of the mounting holes in the charging station (*Fig. 49*). Check before lifting the station.



1	Front of charging station
2	AC input A: L1, B: L2, C: L3, D: PE/G,
3	Cable diameter: 8 x 0,39 – 1,18 cal

Figure 49 Mounting openings for the foundation pins

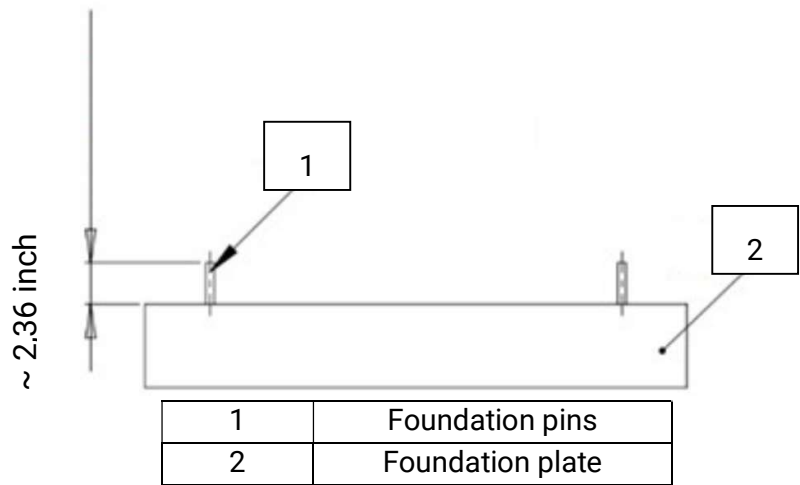


Figure 50 Charging station mounting plate

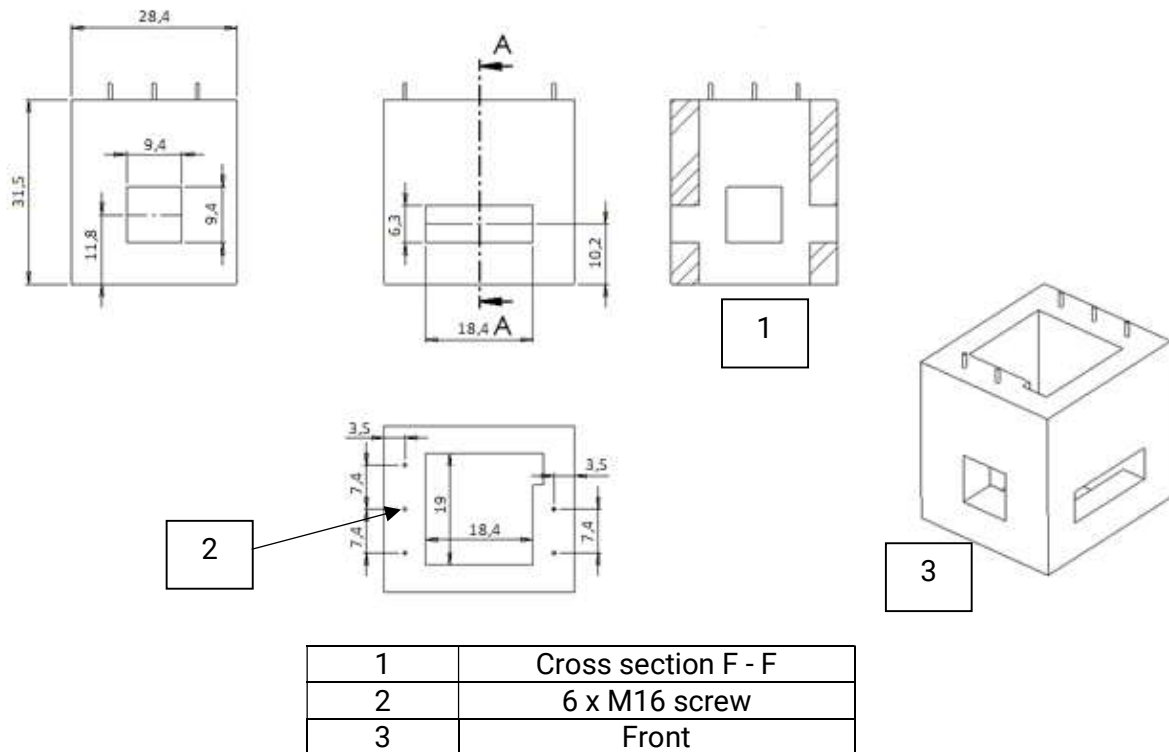


Figure 51 Construction drawing of the foundation for the charging station

- The foundation slab (Fig. 45) should be made with flatness with a maximum deviation of $\frac{1}{4}$ " per 10f [2 mm/m UE] so that the station structure is not deformed.
- Switching on the protection apparatus inside the station - make sure that all elements of the protection apparatus are in the working position.
- Setting up the charging station - the unloading and foundation of the charging station should be done with a transport device that is matched to the weight of the station to be moved.
- The foundation of the loader should be made precisely so that the mounting holes in the lower structure of the station are in the axis of the foundation bars,
- After setting the station on the foundation, fix the enclosure to the ground with a washer and nut in each of the 6 foundation rods, then insert the power cable through a suitable conduit in the floor of the charging station, and install the two pedestal caps.
- Power supply connection - L1, L2, L3, N, PE wires should be connected according to the electrical diagram of the device 3/8" UNC [M10 UE] screws, conductors with a cross-section of not more than 240mm²).

**WARNING**

Before operating the charging station, connect the ground wire to the ground terminal “PE” of the charger.

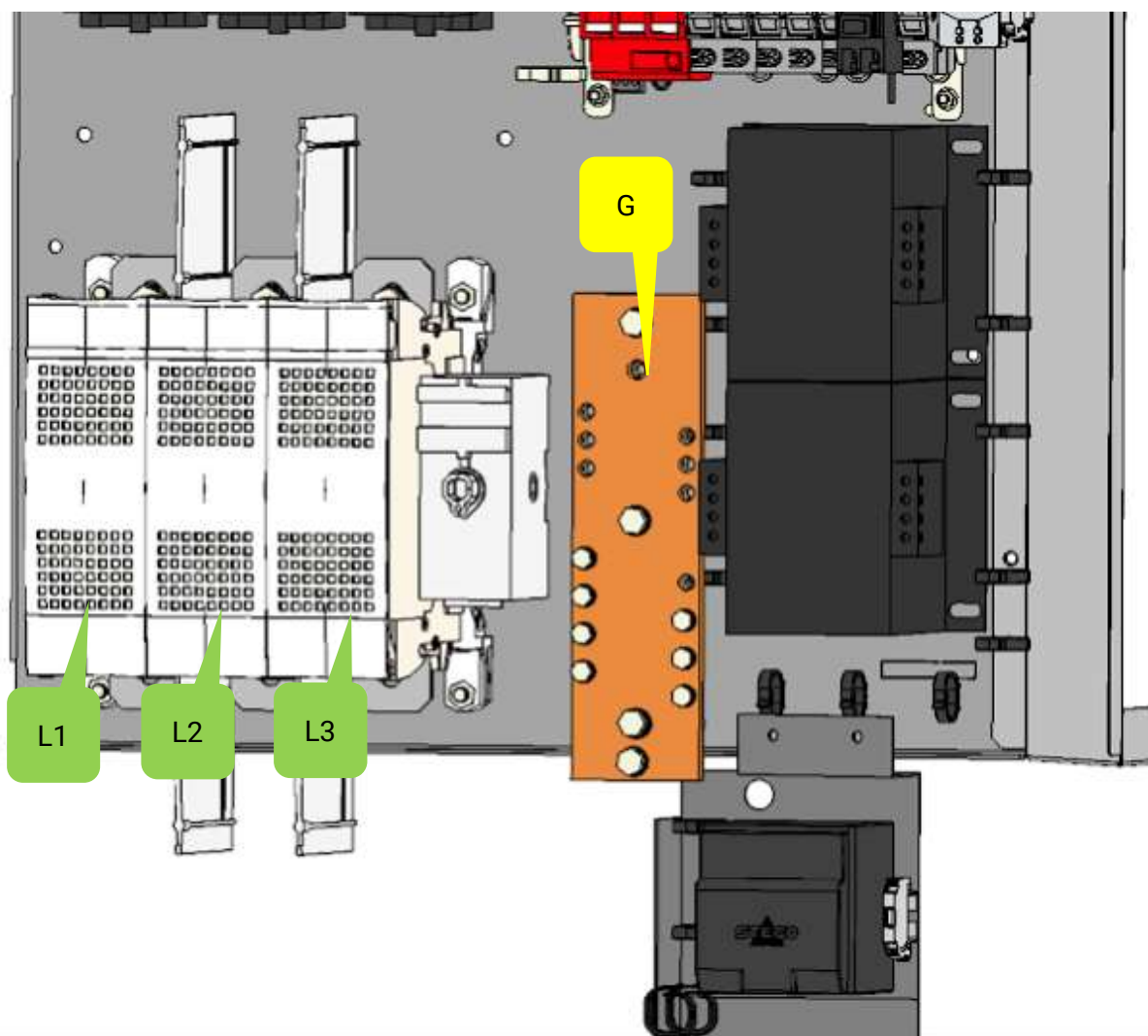


Figure 52 Supply cables connection points

**WARNING**

Before the first start-up, check the tightening torques of the apparatus and connecting wires according to the following tables:

Table 5 Selection of wires, terminals and tightening torques

Power of charging stations	60	90	120	150	180
Cable cross sections	2 (MCM) (35mm ²) - 300 MCM (150 mm ²)	2/0 (MCM) (70 mm ²) - 300 MCM (150 mm ²)	4/0(MCM) (120 mm ²) - 300 MCM (150 mm ²)	300 (MCM) (150 mm ²) - 500 (MCM) (240 mm ²)	400 (MCM) (185 mm ²) - 500 (MCM) (240 mm ²)
Clamps	Barecopper	Barecopper	Barecopper	Barecopper	Barecopper
Clamps (cable type wire)	Sleeve end	Sleeve end	Sleeve end	Sleeve end	Sleeve end
Tightening torque	35 Nm	35 Nm	35 Nm	35 Nm	35 Nm

Table 6 Tightening Torque for Pressure Wire Connectors Having Screws

Size of wire that shall be used for connection of the unit		Tightening torque, N·m (pound-inches)			
		Slotted head No. 10 and larger ^a		Hexagonal head – external drive socket wrench	
AWG / kcmil	mm ²	Slot width – 1.2 mm (0.047 inch) or less and slot length 6.4 mm (1/4 inch) or less	Slot width – over 1.2 mm (0.047 inch) or slot length over 6.4 mm (1/4 inch)	Split-bolt connectors	Other Connections
18 – 10	0.82 – 5.3	2.3 (20)	4.0 (35)	9.0 (80)	8.5 (75)
8	8.4	2.8 (20)	4.5 (40)	9.0 (80)	8.5 (75)
6 – 4	13.3 – 21.2	4.0 (35)	5.1 (45)	18.6 (165)	12.4 (110)
3	26.7	4.0 (35)	5.6 (50)	31.1 (275)	16.9 (150)
2	33.6	4.5 (40)	5.6 (50)	31.1 (275)	16.9 (150)
1	42.4	–	5.6 (50)	31.1 (275)	16.9 (150)
1/0 – 2/0	53.5 – 67.4	–	5.6 (50)	43.5 (385)	20.3 (180)
3/0 – 4/0	85.0 – 107.2	–	5.6 (50)	56.5 (500)	28.2 (250)
400	203	–	5.6 (50)	93.2 (825)	36.7 (325)
500	253	–	5.6 (50)	93.2 (825)	42.4 (375)
600 – 750	304 – 380	–	5.6 (50)	113.0 (1000)	42.4 (375)
800 – 1000	406 – 508	–	5.6 (50)	124.3 (1100)	56.5 (500)
1250 – 2000	635 – 1016	–	–	124.3 (1100)	67.8 (600)
NOTE – Connectors having clamping screws with multiple tightening means (for example, a slotted, hexagonal head screw) shall be tested using both values of torque.					
^a For values of slot width or length not corresponding to those specified, select the largest torque value associated with the conductor size. Slot width is the nominal design value. Slot length shall be measured at the bottom of the slot.					

Table 7 Tightening torques of instruments

Symbol	Catalog	Description	Manufacturer	Quantity	Tightening Torque
-400K10.1 -400K10.2 -400K13 -400K14 -400K16 -400K17	EVHB500A-24S/G	DC contactor	YM Tech Co., Ltd.	6	3,1 - 4,0 Nm
-201K9	700-FEM6TZ12	Hard Reset Timer Relay	Allen-Bradley	1	0,8 - 1,2 Nm
-201K5 -201K11	700-CF400EJ	Relay - type CF 4 P DC, 4 ZZ, 24VDC coil	Allen-Bradley	2	1 - 1,5 Nm
-201K17	700-CF400D	Relay - type CF 4 P AC, 4 ZZ, 120VAC coil	Allen-Bradley	1	1 - 1,5 Nm
-201Q14 -201Q18	278553	Overcurrent circuit breaker, C, 4A, 1P	Eaton	2	2,4 Nm
Next inspection: - once a year - stationary chargers					

For devices that are not listed in the tightening torque table, please refer to the manufacturer's documentation.

8.3.CONDITIONS FOR COMMISSIONING

In order for the device to be commissioned, the following conditions must be met:

- mechanical assembly completed,
- completed electrical assembly,
- connected electrical supply with the required parameters that are necessary for proper operation,
- performed visual inspections, tests and examinations confirming that the requirements of local regulations for the device and installation have been met,
- performed tests and examinations confirming that the requirements specified in the contract have been met,
- familiarization of the user with the technical documentation and Operating Instructions,
- training of the user in the operation of the charging station.

8.4. TRAINING

An integral part of commissioning is the training of operators in the proper and safe operation of the entire plant. The training also includes maintenance workers, specifying the schedule and scope of work to be performed.

Before the start of commissioning work, the manufacturer's service representative must discuss with the customer's representative the training schedule and the composition of the operating and maintenance personnel. Completion of the training must be confirmed by an appropriate protocol detailing the persons participating in the training.

The training should include:

- A discussion of the various components of the plant, their design and function,
- discussion of the control and visualization system,
- discussion and simulation of alarm conditions and relevant safety modes initiated in emergency situations,
- presentation and discussion of documentation,
- discussion of the principles of switching on the duty cycle, switching off the charger plant,
- discussion of the schedule and scope for conducting maintenance work.

To start the charging station, turn on the power, press and unlock the safety switch and wait for the start screen, which should appear on the display

8.5. INSTALLING AND CONFIGURING THE ROUTER

8.5.1. INSERTING A SIM CARD INTO THE ROUTER

To install a sim card in the router you need to:

- switch off the charging station,
- push the SIM holder button (marked with a yellow arrow in *Figure 53*) with the SIM needle, until the sim card holder comes out (*Figure 54*),



Figure 53 Slots on the router



Figure 54 View of the sim card holder extended

- insert the sim card in the holder,



Figure 55 Correctly placed sim card in the holder

- slide the SIM holder back into the router and press it slightly until it is in the original position.

**CAUTION**

User manuals for various router models can be found at the following web addresses, in the "downloads" tab:

- 1 <https://teltonika-networks.com/products/routers/rut950>
- 2 <https://teltonika-networks.com/products/routers/rut951>
- 3 <https://teltonika-networks.com/products/routers/rut955>

You can find your router model here (marked in yellow):



Figure 56 How to find the router model

9. CONSTRUCTION OF THE DEVICE

9.1.DIVISION OF ELECTRICAL CIRCUITS

The electrical circuits of the device can be divided into several major parts, which are shown in the figure below.

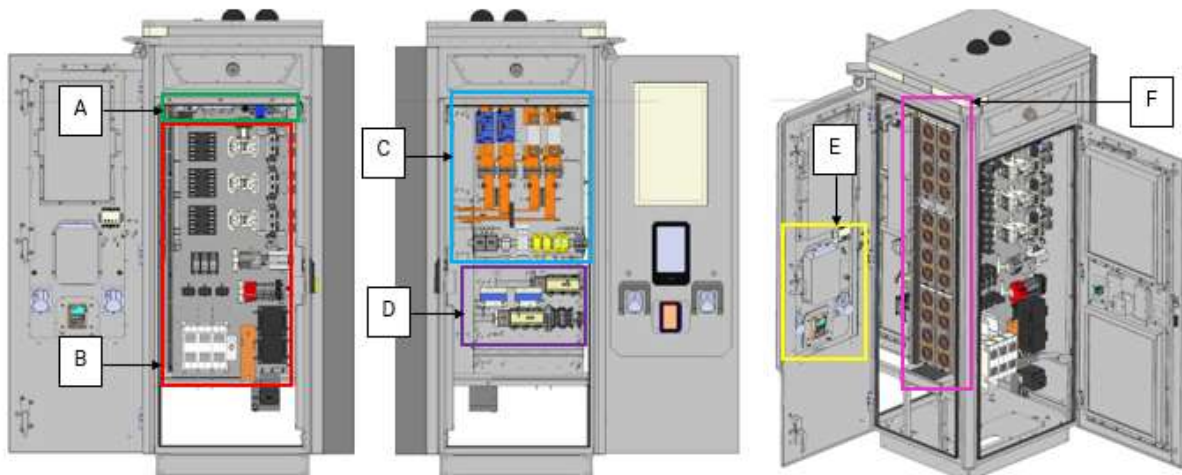


Figure 57 General view of the charging station interior - block division

A	Charging station power supply
B	DC auxiliary power supply
C	DC output
D	Communications
E	User control panel
F	Power modules

10.MAINTENANCE AND DISPOSAL

10.1.MAINTENANCE OF THE CHARGING STATION

To clean the charging station from the outside, use only soft industrial cleaners. Do not use cleaners that could damage the surface of the charger's housing.

Detergents used to clean the charging station must not have flammable or extremely flammable properties.



DANGER

Detergents used for cleaning charging stations must not have flammable or extremely flammable properties.



Figure 58 Hazard pictogram on detergents prohibited for use

Be especially careful when cleaning the charging station.

10.2.PACKAGE

The packaging material is 100% recyclable. During utilization, follow the applicable local regulations.

10.3.UTILIZATION

- Do not dispose of the EKOENERGETYKA devices at public landfill sites.
- Before scrapping, a detailed scrapping instruction should be prepared that includes safety measures to be taken before scrapping the charging station.
- Dispose of the device in accordance with local waste disposal regulations. Always comply with environmental protection regulations.
- The device should be disassembled by specialized companies.
- The device can be disposed of by a specialized company Nationwide Certified Electronics Recycler.

11. RULES OF PROCEDURE IN CASE OF FAILURE OR INTERFERENCE IN THE OPERATION OF THE CHARGING STATION

Failure during charging is indicated by the error message displayed on the screen and the ambient LED light illuminated in red. With all failures, it is necessary to stop using the charging station and follow the instructions below.

If there is a malfunction or interference with the charging station, follow the steps below:

- Pull the plug out of the vehicle,
- reset the vehicle,
- after the screen shows the information that charging can begin and when the ambient LED light illuminates green, connect the plug and try charging again.

If the charging process is not going well, the above steps must be repeated.

If the charging station still does not work properly, please:

- pull out the plug,
- reset the charging station by pressing the safety switch and unlocking it,
- after the screen shows that charging can begin and when the ambient LED light illuminates green, try charging again.

When the charging process does not start, repeat the actions from the above points.



CAUTION

By resetting the charging station by pressing the emergency button in case of a failure on one of the charging connectors, the charging process on the other connector will be automatically interrupted. If such an interruption of the charging session is not advisable, wait until the session is complete and only then perform a charging station reset.

**WARNING**

To ensure that the charging station does not pose a risk to operators and personnel, the Inspection and Maintenance Schedule must be followed (see Chapter 10).

12.HEALTH AND SAFETY REQUIREMENTS AND FIRE FIGHTING REGULATIONS



CAUTION

The electric vehicle charging station can be operated by a person who has read the user's manual.

12.1.NECESSARY STEPS BEFORE CHARGING

Before starting charging, the user should read the documentation and check that:

- there are no people nearby who could pose a risk,
- the charger does not send error or error messages,
- the condition of the device from the outside does not indicate its damage.



DANGER

the charging connector cable or the connector itself are not damaged,

12.2.RULES FOR CONDUCTING A SECURE CHARGING SESSION

- The charging process should be carried out in accordance with its description in the documentation,
- after completing the process, the connector should be secured by putting it in the appropriate storage socket of the charging station.

12.3.CORRECT PLACEMENT OF THE CHARGING CONNECTOR

In order to properly put the charging connector back into the storage socket it is necessary to:

- disconnect the connector from the vehicle,
- insert the connector into the storage socket in the correct position and (if the charging station has a cable holder) roll the charging cable onto the holder.



CAUTION

The Combo-1 connector additionally has a button that, when pressed, allows the connector to be properly deposited into the shelving socket.



CAUTION

Be careful not to damage the charging cable and connector



DANGER

Incorrect positioning of the connector to the socket risks damaging the plug and the cable itself, which can lead to severe personal injury or even death from electric shock.



Figure 59 Correct position of the charging connector in the storage socket

12.4.ACTIVITIES PROHIBITED FOR USERS

- it is forbidden to use the charging station for purposes for which it is not intended,



WARNING

Any modification and use of spare parts that are not sold or recommended by the charging station manufacturer may cause electric shock or damage to the device.



DANGER

It is completely prohibited to remove and open the doors and side panels of the charging station. It is forbidden to work without doors!



DANGER

Failure to follow the instructions and directions listed in the manual can cause significant property damage and risk serious injury or even death from electrocution.



CAUTION

It is recommended that a fire extinguisher designed for extinguishing electrical equipment be located near the charging station.

12.5.DESCRPTION OF COMPLIANCE WITH FIRE PROTECTION REQUIREMENTS

Conditions regarding how to meet fire protection requirements, which should be adapted to the device depending on the location and individual environmental conditions:

- it is prohibited to charge a faulty vehicle, in particular a faulty electrical installation responsible for charging the vehicle's battery and faulty parking safeguards that expose the vehicle to the risk of rolling away accidentally,
- it is forbidden to light a fire, pour out hot ash and slag, or heat tar and other materials with an open flame at a distance of less than 16,5 ft from the device,
- storing fire-hazardous materials, flammable gases and pouring fire-hazardous liquids near the device is prohibited.

12.6.PROCEDURE IN THE EVENT OF A CHARGING STATION FIRE

Occurrence of a short circuit in the electrical system, ignition of the charging station - extinguish with means designed for extinguishing electrical systems (CO2 snow extinguishers designed for extinguishing electrical equipment),



DANGER

The occurrence of a fire in the charging station - extinguish if possible after disconnecting the supply voltage.

Once the power is disconnected, the user should immediately notify the station staff and the fire department about the fire.

Failure to comply with the above-mentioned instructions and directions risks serious injury or death. It may also endanger the environment.

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