VESTEL
MOBILITY

ELECTRIC VEHICLE CHARGER
EVC03 DC SIRIUS SERIES

User Manual

CONTENT

1 - SAFETY INSTRUCTIONS

CAUTION

RISK OF ELECTRIC SHOCK

CAUTION: ELECTRIC VEHICLE CHARGER DEVICE SHALL BE MOUNTED BY A LICENSED OR AN EXPERIENCED ELECTRICIAN AS PER ANY REGIONAL OR NATIONAL ELECTRIC REGULATIONS AND STANDARDS IN EFFECT.

CAUTION

The AC grid connection and the electric vehicle charger's load plan are examined and approved by the electrical regulations and standards of the related region or country determined by the authorities. In the installation of multiple electric vehicle chargers, the load plan will be determined accordingly. The manufacturer shall not be liable in any way, directly or indirectly, for damages or risks caused by the errors that may occur due to AC grid connection or load planning.

CAUTION: FOR DEVICES WITHOUT EMERGENCY BUTTON;

If any suspicious or emergency situation arises at the charging station aside from normal operation, start by halting the charging process through the vehicle (using the appropriate switch or button, which may vary depending on the model), and then disconnect the socket. As an alternative option, consider switching off the MCB or RCCB in the panel where the product is energized by the installer.

IMPORTANT - Please read these instructions fully before installing or operating

1.1 - SAFETY WARNINGS

- Keep this manual in a safe place. These safety and operating instructions should be kept in a safe place for future reference.
- Check the voltage specified on the rating plate and do not use the charging station without the correct mains voltage.
- Do not use the appliance if you have any doubts about its proper function. If the appliance shows any signs of damage, switch off the main circuit breakers (circuit breaker (MCCB) and residual current circuit breaker (RCCB)) in the upstream distribution board. Please contact your local dealer.
- During the charging process, the ambient temperature (without direct sunlight) should be between -35 °C and +50 °C and the relative humidity between 5 % and 95 %. Only use the charging station under the specified parameters.
- The location of the device should be selected carefully so that the charging station does not overheat. High temperatures due to direct sunlight or heat sources during use can lead to a reduction in the charging current or to a temporary interruption of the charging process.

- The charging station is suitable for indoor and outdoor use. It can also be used in public areas.
- To reduce the risk of fire, electric shock or product damage, do not expose the device to heavy rain, snow, thunderstorms or other extreme weather conditions. You should also ensure that no liquids are spilled or splashed onto the charging station.
- Never touch the end connections of the charging station, the plug of the electric vehicle or other live parts with pointed or sharp metal objects.
- Avoid exposing the appliance to heat sources and do not place it near flammable, explosive, hard or corrosive materials, chemicals or vapors.
- Explosion hazard. This appliance contains parts that generate internal sparks or are capable of sparking and must therefore not come into contact with flammable vapors. The appliance should not be installed in lowered locations or below ground level.
- This device does not support the ventilation requirement demanded by the vehicle.
- Ensure that the specified power switch and residual current circuit breaker (RCCB) are connected to the building's power supply to avoid the risk of explosion and electric shock.
- The base of the charging station should be at (or above) floor level.
- No adapters or converters may be used. No cable extensions may be used.
- Attach this charging station to the wall.
- This product may only be used at a maximum altitude of 2,000 meters above sea level.
- Do not place any objects containing liquids, such as glasses and bottles, on the product.
- Keep plastic packaging materials out of the reach of babies, small children and pets to avoid the risk of choking.
- Do not clean the appliance with water.
- Do not use abrasive substances, wet cloths, alcohol or cleaning agents. A microfiber cloth is recommended.
- The key for the door lock, which can be used to unlock the product cover and prevent access to the electrical parts, must be kept out of the reach of small children.
- The device should be stored in its original packaging to prevent damage to the device components during transportation.
- Defects and damage that occur during transportation after delivery to the customer are not covered by the warranty.
- The maximum permissible current value of the service socket is 10 A.

WARNING: Persons (including children) with reduced physical, sensory or mental capabilities or lack of experience must not use electrical appliances without supervision by a person responsible for their safety.

CAUTION: This vehicle charger was developed exclusively for charging electric vehicles that do not require ventilation during the charging process.

1.2 - FIREFIGHTING INSTRUCTIONS FOR THE VESTEL GLOBAL CHARGING STATION FOR ELECTRIC VEHICLES

- Personal safety: If you discover a fire or signs of danger, your own safety has top priority. Do not take any risks.
- Immediate notification of the emergency services: Contact the relevant emergency services in your region. Dial the emergency number 112.
- Completion of the charging process: If it is safe to do so, disconnect the charging cable from the vehicle and from the charging station.
- Use of fire extinguishing agents: If there is a fire extinguisher or other fire extinguishing equipment nearby and you are trained in its use, try to extinguish the fire. However, never jeopardize your own safety.
- Avoid direct contact with the fire: You may only attempt to extinguish the fire if you have the appropriate equipment or the necessary knowledge, and refrain from fighting the fire if it is too large or too dangerous.
- Move away from the charging station: If the fire cannot be brought under control or increases in intensity, leave the area around the charging station and keep an appropriate safety distance.
- Do not inhale smoke: Try not to inhale the smoke. If possible, please cover your mouth and nose with a damp cloth or a piece of clothing.
- Warn others in the vicinity: Inform other people in the vicinity of the fire hazard and ask them to move away from the area.
- Wait for the emergency services: After you have evacuated the danger zone to safety, wait in a safe place for the emergency services to arrive.
- Do not return to the site where the charging station was installed: Do not re-enter the area where the charging station has been installed until the emergency services have completed their work.
- Report the incident: Contact Vestel Global customer service to report the incident.

Remember that safety is the top priority. In the event of a fire, always contact the local emergency services and follow their instructions.

1.3 - GROUNDING WARNINGS

- The charging station should be connected to a centrally earthed system. The earthing conductor connected to the charging station should be connected to the earthing terminal of the device in the charging station. The power must be supplied via circuit conductors and the device must be connected to the earthing rod or the guide element on the charging station. Installers and buyers are responsible for the connection to the charging station.
- The connection may only be made with correctly earthed plugs to reduce the risk of electric shock.
- **WARNING:** Ensure that the charging station is permanently and properly earthed during installation and use.

1.4 - POWER CABLES, PLUGS AND CHARGING CABLE WARNINGS

- Please note: The plugs and connections of the charging station must be compatible.
- A damaged charging cable can cause a fire or electric shock. Refrain from using this product if the flexible charging cable or the vehicle cable is worn, has damaged insulation or shows other signs of damage.
- Make sure that the charging cable has been laid correctly so that you do not step on and/or trip over the cable and that the cable is not damaged or live.
- Do not pull the charging cable with force and do not damage it with pointed or sharp objects.
- Never touch the power cable/plug or the vehicle cable with wet hands, as this could lead to a short circuit or electric shock.
- To avoid the risk of fire or electric shock, this appliance must not be used with an extension cord. A damaged mains or vehicle cable should be replaced by the manufacturer, a customer service agent or similarly qualified specialist personnel in order to rule out any hazards.
- Appropriate protection is required when connecting the appliance to the main power line.

1.5 - PROTECTION BEFORE INSTALLATION OF THE SYSTEM

- A Class I/B lightning protection should be connected to the upstream distributor. A cable connection of at least 10 m between the charger and the protective device is recommended. *The charger is equipped with a Class II/Type C surge protective device (SPD).
- To avoid fault currents, a type A residual current relay with a toroidal sensor should be used at the switchboard before the device. The minimum current sensitivity should be set to 300 mA.
- Circuit breakers (MCCB; thermal-magnetic adjustable) should be connected to the upstream distributor.

Modell	Output power	Supply voltage	Input alternating current	Recommended cross-sectional value L1-L2-L3 (mm2) (copper conductor cable)	Recommended cross-sectional value for neutral conductor (copper conductor cable)	Recommended cross-section value for PE (mm2) (copper conductor cable)
EVC03-DC HP400/320	400kW	400V (nom.)	612A	2 x 185	16	185
	320kW	360V (-%10)	680A			
EVC03-DC HP240/160	240kW	400V (nom.)	370A	240	16	240
	160kW	360V (-%10)	410A			

The minimum cable cross-sections are intended for the maximum AC input current. The final cross-sections of the installation conductors should be calculated by the installer based on the distances and conditions at the installation site.

NOTE!!! If the product is to be upgraded from 320 kW to 400 kW and from 160 kW to 240 kW after installation, the installation of the infrastructure should be carried out according to the values specified in the above power table.

2 - MODEL DESCRIPTION

Model name	**Series EVC03-HP (name coding: EVC03-HP****-EICH)** 1. Asterisk (*) : Rated power 400 : 320/400 kW DC output power 240 : 160/240 kW DC output power 2. Asterisk (*) : Direct current output combination 1 C : CCS output 1 3. Asterisk (*) : Direct current output combination 2 C : CCS output 2 4. Asterisk (*) : MID Meter VE : Vestel Edition
Cabinet	EVC03HP

3 - ELECTRICAL SPECIFICATION

Modell		Series EVC03-HP
IEC protection class		Class - I
Class IEC EMC		IEC 61000-6-3 Class B-Domestic (Emission) IEC 61000-6-2 Industrial (Immunity)
Accuracy class		Class A
Input - rated voltage and current value	**Input rate**	400 Vac ±10% , 50/60 Hz, 612A / phase- (320/400 kW option) 400 Vac ±10% , 50/60 Hz, 370A / phase- (160/240 kW option)
	Connection	3P+N+PE (TN,TT)
	Power factor	> 0,98
	Efficiency	> %95
	Residual current protection	230 Vac RCBO 1P+N, Tip A, 30 mA (system)
	Stand-by power consumption	< 180 W
CCS output - 1	**Max. Performance**	**320/400kW option** • 1 x 320kW or 1 x 400kW • 2 x 160kW or 2 x 200kW **160/240kW options** • 1 x 160kW or 1 x 240kW • 2 x 80kW or 2 x 120kW
	Voltage range	200 - 920 Vdc
	Maximum current	**320/400kW options** Liquid cooled or non-cooled cable variants are available. Derating may be applied. 500A continuous, up to 750A with liquid cooled cable • 1 x 320kW or 1 x 400kW • 2 x 160kW or 2 x 200kW 300A continuous, up to 500A with non-cooled cable • 1 x 320kW or 1 x 400kW • 2 x 160kW or 2 x 200kW **160/240kW option** Non-cooled cable variants available, derating may be applied. 300A continuous, up to 500A with non-cooled cable • 1 x 160kW or 1 x 240kW • 2 x 80kW or 2 x 120kW
	Minimum current	6 A
	Min. Energy for guaranteed accuracy	3 kWh
	Interface compatibility	IEC62196-1 / 3 IEC 61851-1 / 23 / 24 ISO 15118-1 / 2 / 3 DIN 70121 REA document 6-A PTB-A 50.7 PTB A 50.8

CCS output - 2	**Max. Performance**	**320/400kW option** • 1 x 320kW or 1 x 400kW • 2 x 160kW or 2 x 200kW **160/240kW options** • 1 x 160kW or 1 x 240kW • 2 x 80kW or 2 x 120kW
	Voltage range	200 - 920 Vdc
	Maximum current	**320/400kW options** Liquid cooled or non-cooled cable variants are available. Derating may be applied. 500A continuous, up to 750A with liquid cooled cable • 1 x 320kW or 1 x 400kW • 2 x 160kW or 2 x 200kW 300A continuous, up to 500A with non-cooled cable • 1 x 320kW or 1 x 400kW • 2 x 160kW or 2 x 200kW **160/240kW option** Non-cooled cable variants available, derating may be applied. 300A continuous, up to 500A with non-cooled cable • 1 x 160kW or 1 x 240kW • 2 x 80kW or 2 x 120kW
	Minimum current	6 A
	Min. Energy for guaranteed accuracy	3 kWh
	Interface compatibility	IEC62196-1 / 3 IEC 61851-1 / 23 / 24 ISO 15118-1 / 2 / 3 DIN 70121 REA document 6-A PTB-A 50.7 PTB A 50.8
Internal precautions		Residual current detection, insulation monitoring, overcurrent/ overvoltage / undervoltage / short circuit / overheating / overvoltage protection

4 - USER INTERFACE & AUTHENTICATION

Screen	Color TFT LCD (17")
User interface	High brightness resistant touchscreen
RFID reader module	ISO/IEC14443A/B and ISO/IEC-15693
Payment module (optional)	Options for contactless credit card equipment Please contact the following service providers regarding installation. https://www.payter.com/contact https://www.nayax.com/contact/
DC-MID measuring device (optional)	MID measuring device approved
DC-MID measuring device (optional)	Compatibility with German calibration law

5 - CONNECTIVITY

LAN connection	Ethernet
WLAN connection	2.4GHz/5GHz: 802.11 a/b/g/n/ac
Mobile connection	GSM 900/1800 UMTS 900/2100 LTE-Band 1/3/7/8/20/28A
OCPP specification	OCPP 1.6 J

6 - MECHANICAL SPECIFICATIONS

Material	Metal plate	
Degree of protection	Water and dust protection Impact protection	IP55 IK10
Cooling	Cooling air fan	
Cable length	CCS: 4.50 m	
Cable support system	Optional	
Dimensions (product)	2109 mm (length), 840 mm (width), 1026 mm (depth)	
Dimensions (packaged version)	2300.0 mm(length), 1000 mm (width), 1090 mm (depth)	
Weight (product)	636 kg	
Packed weight	828.5 kg with packaging	

7 - ENVIRONMENTAL TECHNICAL SPECIFICATIONS

Operating Condition	Temperature	-35˚C to +50˚C (derating is applied at +40˚C to +50˚C) For products with credit card option - 20˚C to +50˚C
	Humidity	5 % to 95 % (relative humidity, without condensation)
	Altitude	0 to 2,000 m

After the product has been powered at low temperatures, it should wait for the activation of the heating element in the charger, and the charging process should only be carried out afterwards.

8 - TECHNICAL SPECIFICATIONS OF THE MEASUREMENT CAPSULE

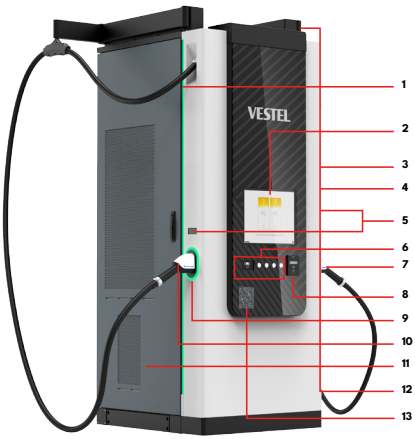
Modell	DCBM_N1M_6000C20_0000C00 DCBM_N2M_6000C20_0000C00
Manufacturer	LEM INTERNATIONAL SA
Sign of the type test certificate	DE-20-M-PTB-0075
Iref [A]	120
Imax [A]	600
Imin [A]	6
Meter constant [imp./kwh]	1000
Un [V]	150/1.000 V
Operating temperature	-25...+70 ˚C
Accuracy class	B
Firmware version (measuring device unit)	2.3.0.1
Firmware version (sensor unit)	0.1.3.0
Checksum of the firmware (measuring device unit)	0x7BE605E0439539EECE15E856
Checksum of the firmware (sensor unit)	0x3CBB

9 - BEHAVIOR OF THE STATUS INFORMATION LED

STATUS OF THE LED		MODUS
	Blue - flashes for 1 second	When the product is initialized.
	Green - constant light	While the product is in standby mode. (No loading)
	Blue - constant glow	When the cable is connected to the electric vehicle.
	Green - flashing	The charging process is initiated.
	The percentage charging progress can be read from the number of LEDs, the top 3 LEDs flash.	During loading.
	Blue - constant glow	Charging process has been stopped or terminated.
	Red - constant light	Error.
	Blue until the plug is removed.	The charging process is complete.

10 - GENERAL INFORMATION

10.1 - INTRODUCTION OF PRODUCT COMPONENTS



1- LED

2- Display

3- Access cover for fan, relay and mains switch

4- Emergency stop button

5- MID meter

6- RFID reader, buttons

7- DC-CCS output plug

8- Credit card reader (optional)

9- CCS dummy socket

10- DC-CCS output plug

11- Access cover for CTB, PLC card and HMI, power modules.

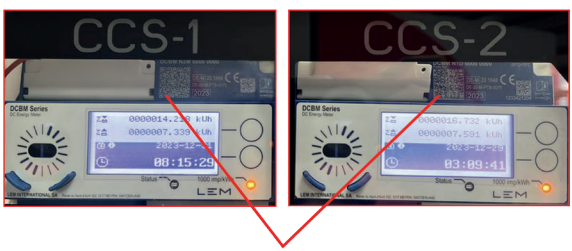
12- Cable management (optional)

13- User manual QR code

All product images are for illustration purposes only.

10.2 - PUBLIC KEY

A QR code with the public key in full format is printed on the front of the measuring device. The signature can be verified using a public key.



Information on the public key

Public key (for the measuring capsule, depicted on the nameplate of the measuring device of the charging station in the form of a QR code)

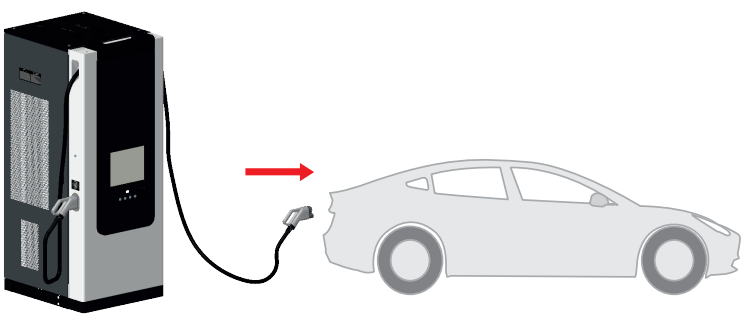
11 - CHARGING SCENARIOS (INCLUDING ALL SCENARIOS)

In the main screen on the charging station display, you may either tap the plug you want to use or simply connect that plug to your car.

11.1 - DC-CCS plug

11.1.1 - CONNECTION TO THE VEHICLE AND CHARGING

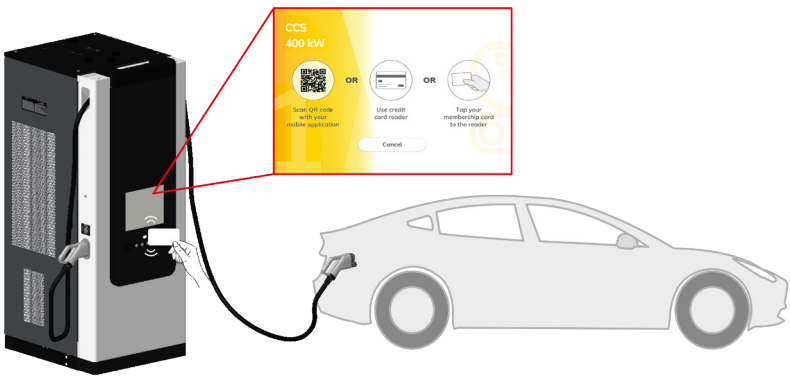
1- Connect charging cable to move to payment screen.



All product images are for illustration purposes only.

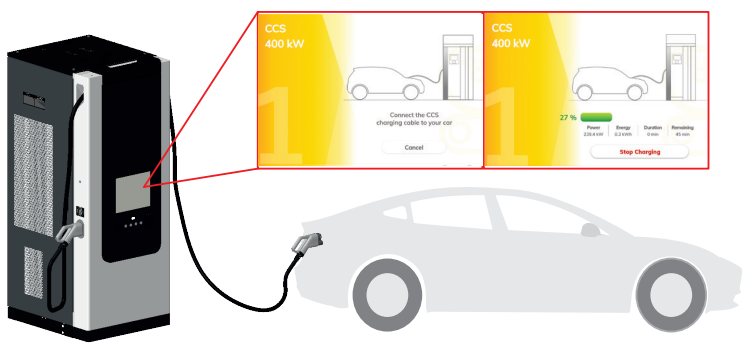
2 - Scan your RFID card, QR Code to start charging or the use credit card reader. Credit card reader (optional) appears on the screen when there is a payment module.

(AutoCharge If it is set in webconfig and vehicle registration is available in the system, charging starts without reading the RFID card)



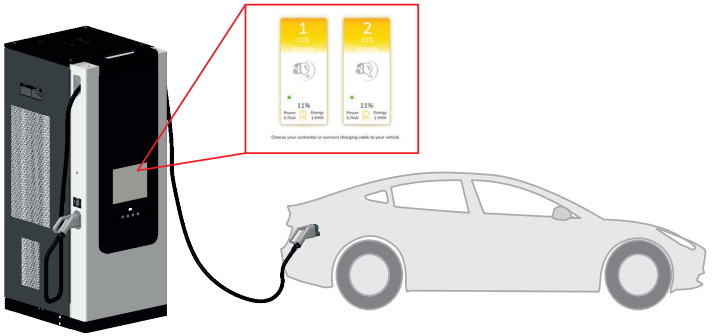
All product images are for illustration purposes only,

3- It may take a few seconds for charging session to start. Charging state can be seen in charging page.



All product images are for illustration purposes only.

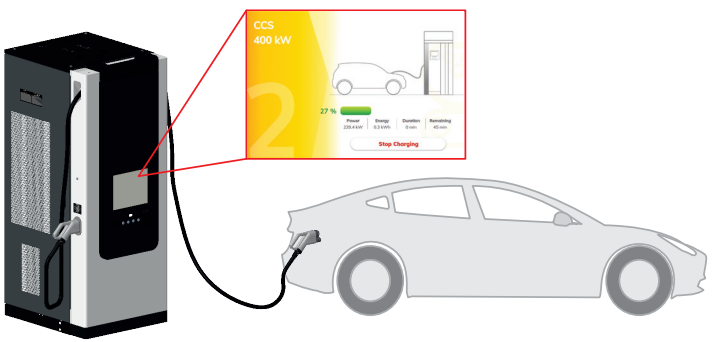
4- While charging, charging state can be seen in the main menu.



All product images are for illustration purposes only.

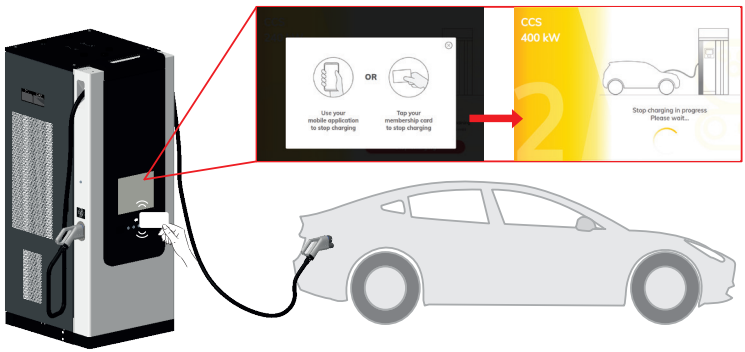
11.1.2 - STOP CHARGING

11- Click “Stop Charging” to end the charging session.



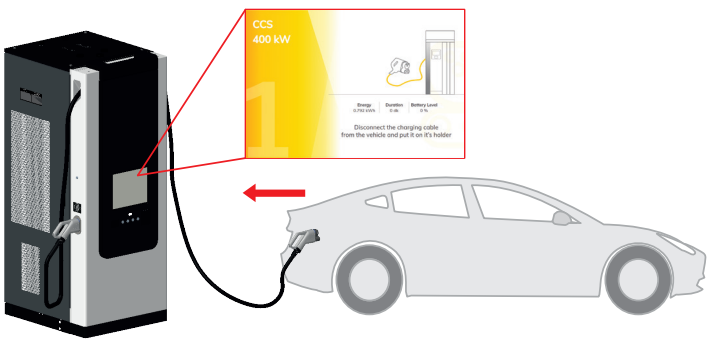
All product images are for illustration purposes only.

2- Scan your RFID card or scan QR Code to stop charging.



All product images are for illustration purposes only.

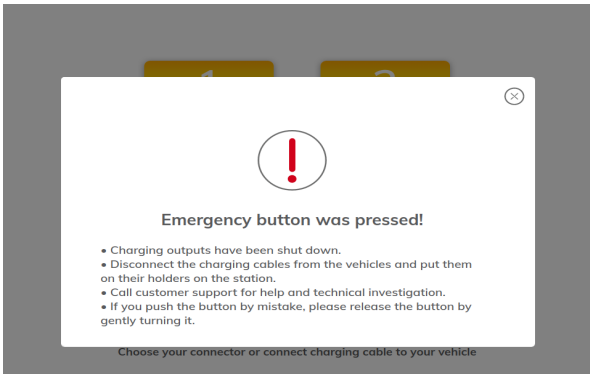
3- Disconnect the charging cable.
After disconnection, you will automatically move to the main screen.

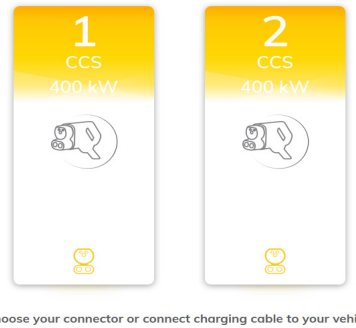


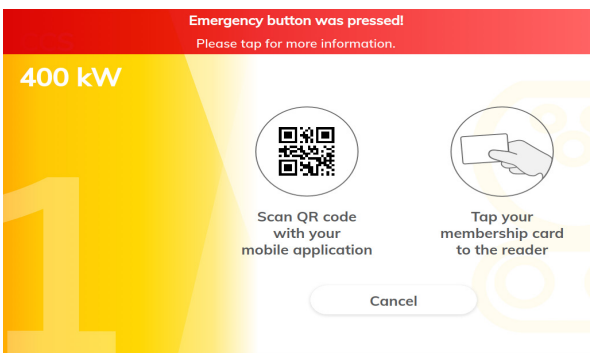
All product images are for illustration purposes only.

11.1.3 - EMERGENCY STOP (OPTIONAL)

Please follow screen when emergency stop pressed.



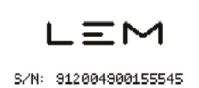
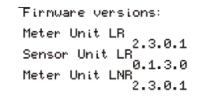
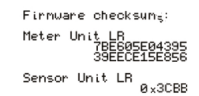
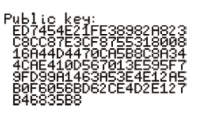




12 - LCD display

This display allows the various measurement values and their associated units and registers to be displayed in plain text.

PRODUCT START DISPLAY

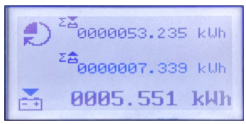
Bildschirm	Beschreibung
	Company logo Serial number of the device
	Identifiers of the DCBM firmware versions
	Integrity checks for legally relevant firmware components
	Public key of the device, for authentication in LEM format (i.e. without OCMF-RFC5480 header), public key with OCMF format is encoded in the data matrix on the front of the device.
	Test screen

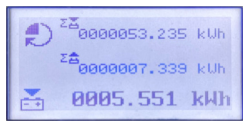
The texts on the display are shown in a loop cyclically. The next display appears every 8 seconds. As long as the measuring device is measuring a consumer, the display is permanently illuminated and the scrolling of the display continues.

13 - PRODUCTS WITH CERTIFIED ENERGY METER

RFID/Autocharge and credit card authentication methods have different information on the meter display energy register at the beginning of the transaction.

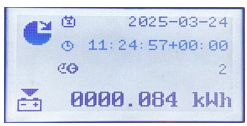
RFID/Autocharge credit card

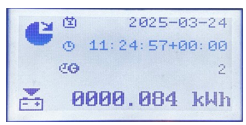




Date and time on site at the start of the transaction Total duration of the transaction

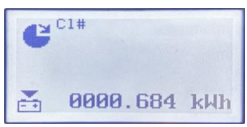
RFID/Autocharge credit card

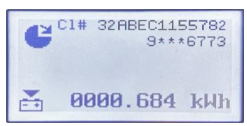




Customer RFID/Autocharge ID Customer Credit Card ID

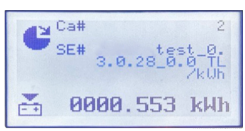
Prefix of the charging station operator, followed by the first 6 digits and the last 4 digits of the credit card ID

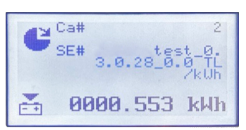




Cable compensation, EVSE identification input and chargepoint ID_Sw version_tariff (chargepointid_Sw version_tariff) with currency

RFID/Autocharge credit card



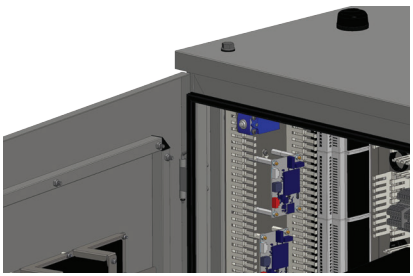


Energy register at the end of the transaction.

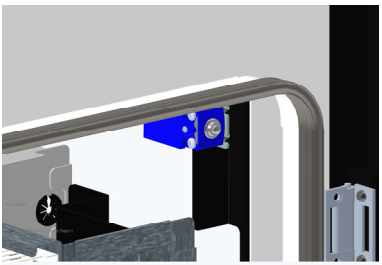
RFID/Autocharge credit card

14 - DOOR SWITCH

The behaviour of the door position can be monitored with 2 different conditions set as normally open or normally closed given via the terminal. When the doors are opened, the breaker can be controlled over the main panel outside the station with a control lead to be taken over the dry contact. This information is also transmitted to the service via OCPP.



Side Doors

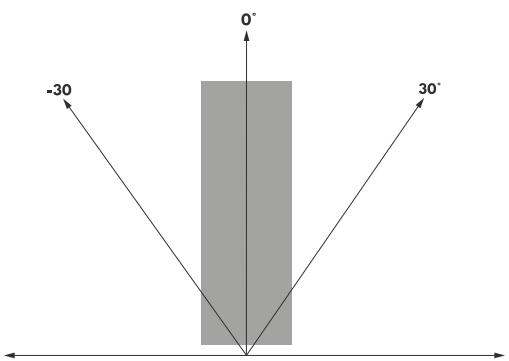


Front Door

15 - TILT SENSOR

If the product reaches the determined tilt angle in forward or reverse direction, the tilt sensor takes the tilt angle information on the OCPP and disables the sockets and prints “Out Of Order” on the screen. But it does not cut the product energy. In this case, the product must be de-energised by the charging station operator from the energy panel to which it is connected.

Note: The tilt angle is 30 degrees by default, but this value can be changed via the WEB UI link.

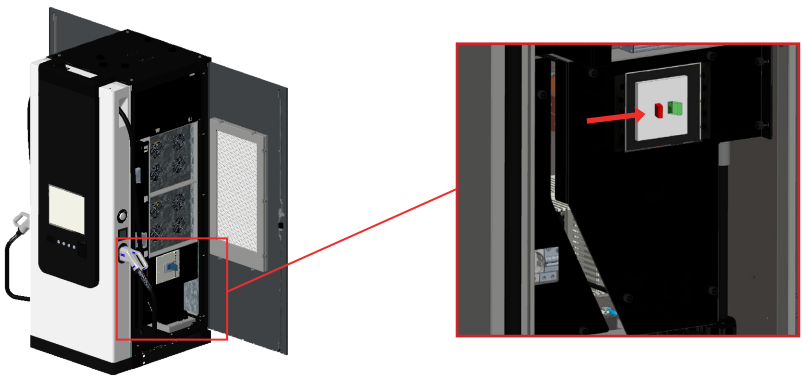


16 - RCD POSITIONS FOR CHARGING OUTPUTS

⚠ CAUTION

- For more information on opening the front cover, refer to the section "Opening the Front Covers" in the product installation manual.

- If the circuit breaker (MCB) was only activated in the versions with CCS output, check the insulation of the corresponding output cable. Then activate the circuit breaker (MCB) as shown in the figure below.



17 - VERIFICATION OF THE VALIDITY OF THE MEASUREMENT

Data with transparency software

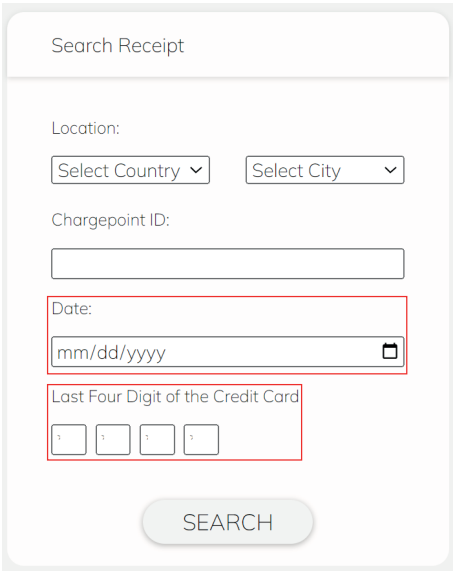
This section deals with billing, the transmission of legally relevant data, and the billing procedure according to the German Measurement and Calibration Act (MessEV).

At this charging station, the information for the ongoing kWh display is shown on the MID display of the meter approved under calibration law.

If you have used your RFID card to authorize the charging process, you can request the signed measurement data from the operator of your charging station or your electric mobility provider.

If you process the charging via your credit card, you will find the invoice amount for the charging process and the link to the receipt server (www.evc.cash) on your credit card statement after the charging process is completed. You can access the website www.evc.cash via a web browser on your smartphone or computer to download the signed data of the charging transaction by entering the last four digits of your credit card and the date in the required fields.

To better filter the transactions of the charging process, you can also enter optional fields such as city, country, or the ID of the charging station.



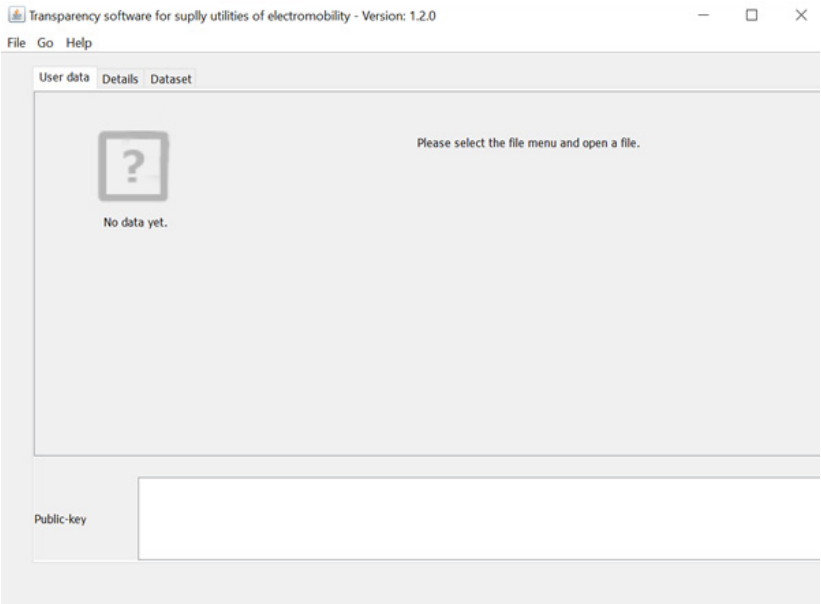
What is transparency software?

With transparency software, you can verify digital signatures. According to their technical design, a charging station creates digitally signed meter readings for each charging process conducted at that station. Based on these digital signatures, you can check the measurements with a time delay and thus ensure that no one has manipulated your measurements during the transmission to your invoice.

If you want to use the transparency software, you must first download it and then open it on your desktop PC.

You can download the transparency software via the following link. The installation is explained on this website.

https://www.safe-ev.de/en/transparency_software.php



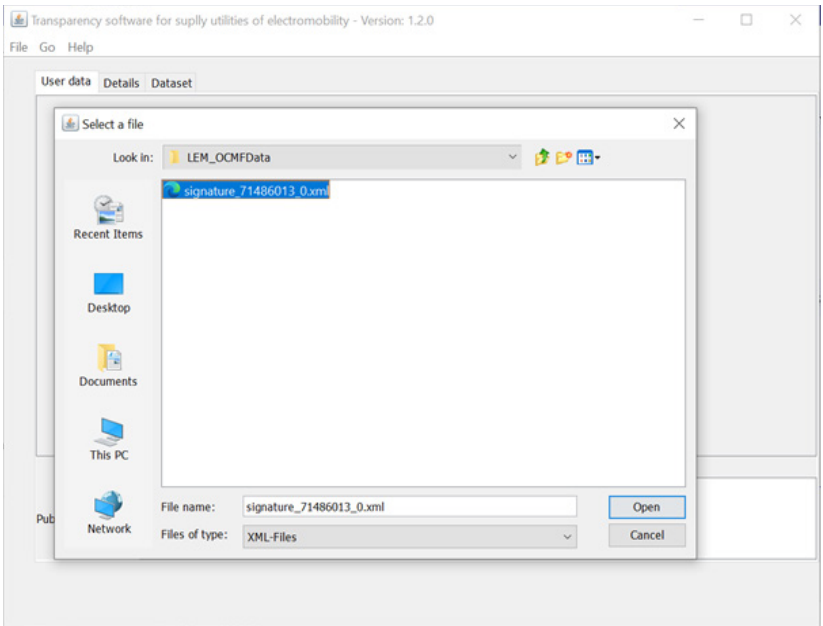
How does the transparency software work?

Transparency software 1.3.0

This software allows you to verify a digital signature. Depending on its technical equipment, a charging station creates a digitally signed meter reading that is linked to the charging station where an electric vehicle is charged. With this digital signature, the measurement values can be verified at a later time. As a consumer, you can always be sure that the charged kWh are indeed correct and that the measured values cannot be changed anymore when billing the kWh charged.

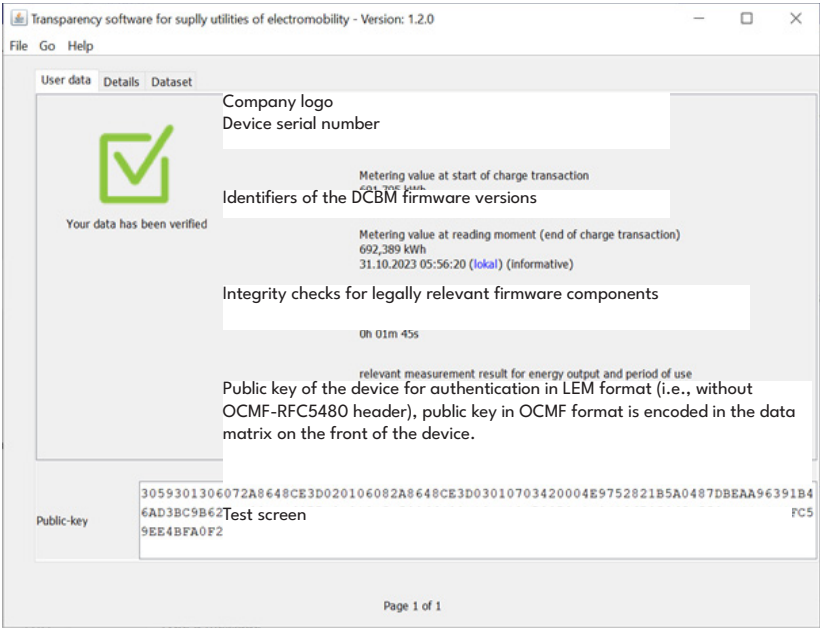
LOADING DIGITAL SIGNATURE DATA

Select the meter readings available to you via the 'File'/'Open' function and enter the public key of the charging station.

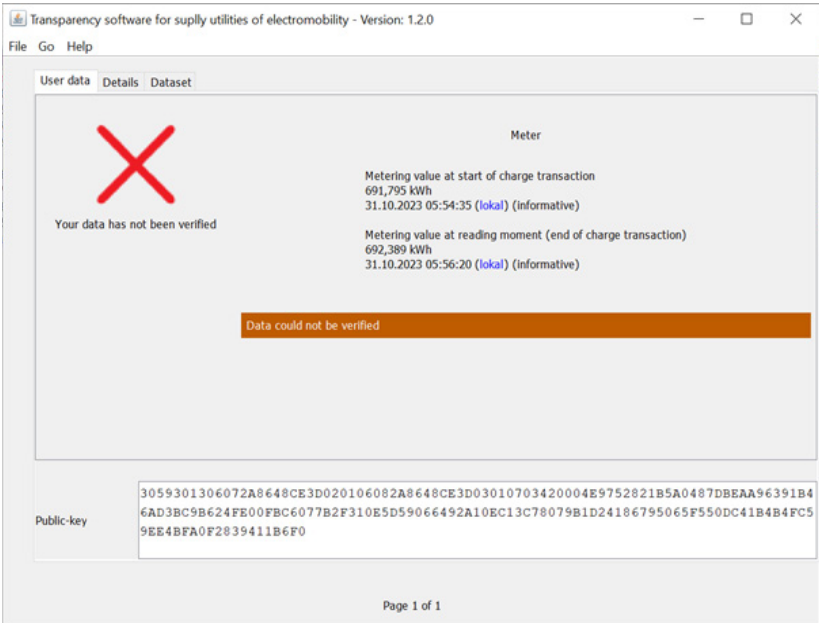


CHECK THE RESULT

Verify the result to ensure that the results of the digital signature verification match the information on your invoice or billing receipt.



If an incorrect public key is entered, the following error message will be displayed.



Remote transmission of measurement data to an OCPP backend

The charging station is connected to an OCPP backend, and the corresponding signed measurement and log data record is automatically made available to the OCPP backend at the end of a charging process.

Transmission of records to customers

The transmission of records to customers is the responsibility of the operator of the charging station and does not fall under the jurisdiction of the manufacturer of the charging station. After the charging process, the signed measurement records are transmitted to a central OCPP system, and the end user can access this data via a web interface, by email, through a smartphone app, or in a similar manner. The records are preferably available in .xml format. In case you need to verify the data of the charging processes using transparency software, please contact the operator of your charging station or your e-mobility provider to request the signed measurement data.

Verification of measurement data with the transparency and display software

With the transparency and display software, users can check whether the measurement data comes from a specific charging station and whether its authenticity has been maintained.

The charging station has a public key. The public key is publicly accessible and is provided as a QR code on the nameplate of the charging station's measuring unit. The charging station creates a record of measurement data that is stored in the measurement capsule. Based on the signed measurement record, the operator of the charging station finally creates the invoice. On the invoice or in a customer

portal, the signed measurement data must be provided along with the public key in a format compatible with the transparency and display software.

After receiving the invoice, the consumer can enter the digitally signed measurement values along with the public key into the transparency and display software. The verification of the signature allows the consumer to check the validity of the measurement values. For this purpose, the consumer compares the values displayed in the transparency and display software with the contents of the invoice. In the case of validation of the measurement record by transparency software, it is ensured that the record is unaltered and permissible for invoicing.

The transparency and display software checks the following data:

The public key as the identifier of the charging station. The public key can also be read from the nameplate of the charging station's measuring unit.

Correctly measured energy value

Correct user/transaction ID

Verification of the signed measurement record

How to verify the measurement record:

1) Download and install a Java runtime environment (this is available for all operating systems and is usually pre-installed, e.g., Oracle).

2) Download the transparency and display software from

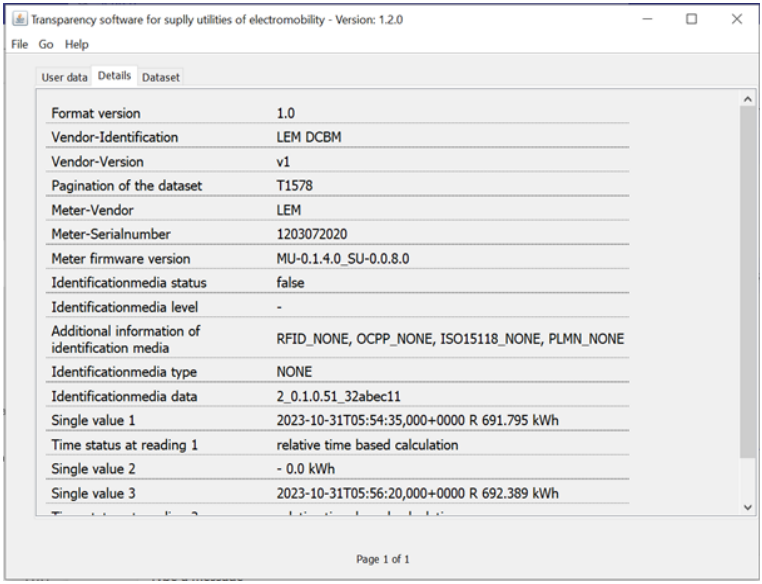
https://www.safe-ev.de/en/transparency_software.php

3) Enter the following data into the transparency and display software:

– the signed measurement record

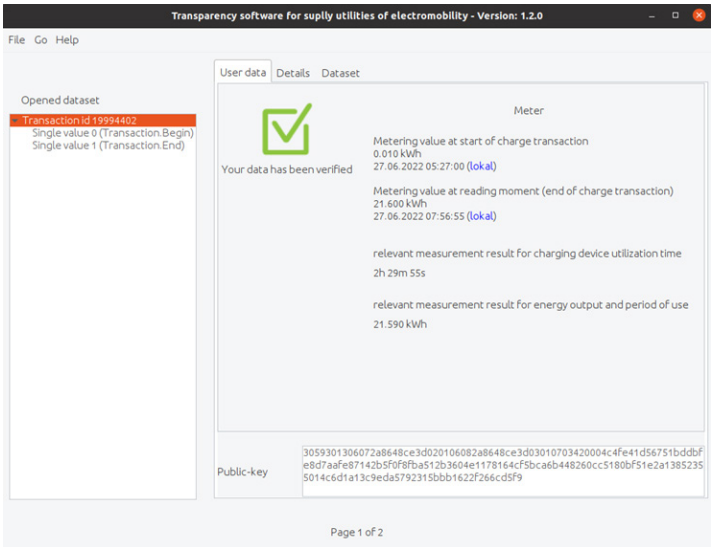
- the selection of the "OCMF" format

- the public key of the corresponding charging station



4) After you have entered the required data, the verification can begin.

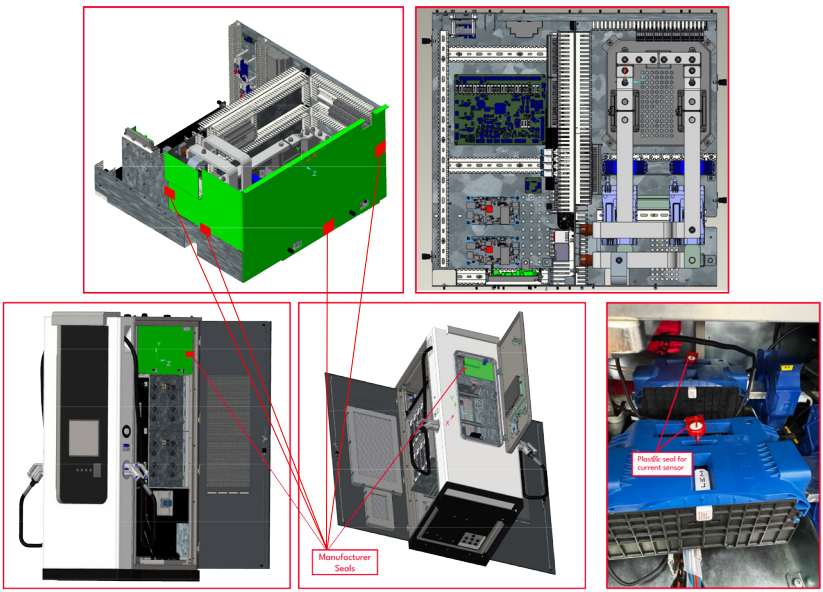
5) Once this verification is complete, it must be checked whether the results of the signature verification match the information on the invoice.



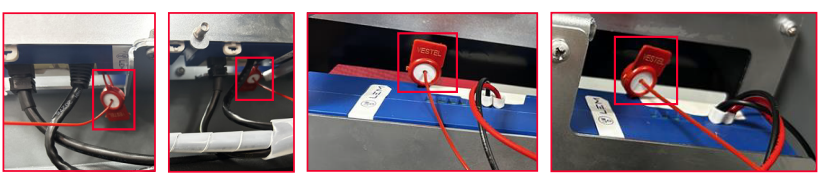
18 - OVERVIEW OF THE CHARGING STATION WITH DESCRIPTION OF THE MANUFACTURER'S/OPERATOR'S SEALS

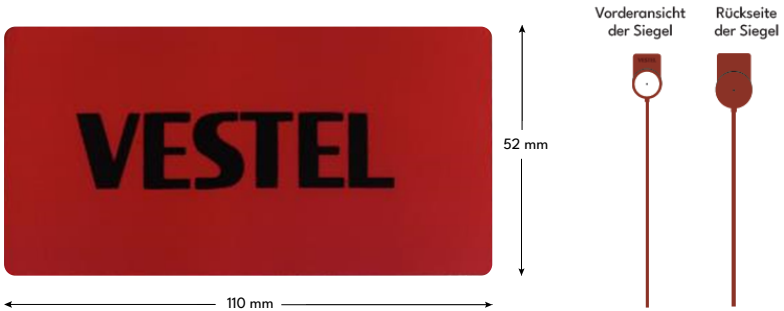
18.1 - SEALS OF THE MANUFACTURER

During production, the measuring units of the charger are provided with manufacturer seals. The following illustration shows the images of the EVC03 calibration law product seals. The sections circled in red indicate the manufacturer's seal.



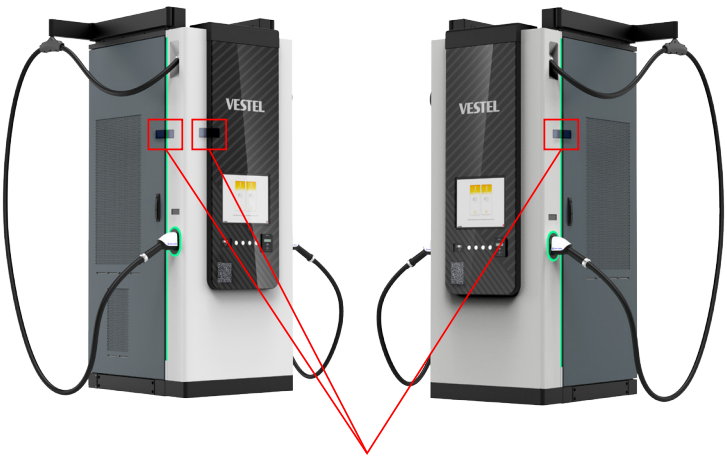
SEAL FOR MID METER





Seal sticker Base size : 110*52 mm

18.2 - RECOMMENDED POSITIONS OF THE OPERATOR SEALS



Operator seal

19 - LEGAL INFORMATION

19.1 - MEASUREMENT ACCURACY NOTES ACCORDING TO CSA TYPE EXAMINATION CERTIFICATE

I Requirements for the operator of the charging facility that must be met as a necessary condition for proper operation of the charging facility.

The operator of the charging facility is, in the sense of § 31 of the Measurement and Calibration Act, the user of the measuring device.

1. The charging facility is only considered to be used in accordance with calibration law and calibration-compliant if the meters installed in it are not exposed to any other environmental conditions than those for which its type examination certificate was issued.

2. The charging facility is only considered to be used in accordance with calibration law and calibration-compliant if only the authentication methods listed under point 1.3.2.3.2 of the currently valid BMP of these 6.8 devices are used.

3. The user of this product must register the public key specified for the charging points at the charging facility with the Federal Network Agency in their registration form when registering the charging points! Without this registration, a calibration-compliant operation of the column is not possible. Weblink:

https://www.bundesnetzagentur.de/DE/Sachgebiete/ElektrizitaetundGas/Unternehmen_Institutionen/E-Mobilitaet/start.html

4. The user of this product must ensure that the calibration validity periods for the components in the charging facility and for the charging facility itself are not exceeded.

5. The user of this product must ensure that charging facilities are taken out of service in a timely manner when a legally compliant operation is no longer possible due to disturbance or error messages on the display of the legally relevant human-machine interface. The catalog of disturbance and error messages in this operating manual must be observed.

6. The user must keep the signed data packets read from the charging facility - in accordance with the pagination, permanently and without gaps (also) on hardware dedicated to this purpose in their possession or through corresponding agreements in the possession of the EMSP or backend system ("dedicated storage"), - available for authorized third parties (operational obligation of the storage). Permanently means that the data must not only be stored until the completion of the business transaction but at least until the expiration of possible statutory deadlines for legal remedies for the business transaction. For non-existent data, no substitute values may be created for billing purposes.

7. The user of this product must provide users of measurement values, who receive measurement values from this product and use them in business transactions, with an electronic form of an operating manual approved by the CSA. In this context, the user of this product must particularly refer to No. II "Requirements for the user of measurement values from the charging facility."

8. The user of this product is subject to the reporting obligation according to § 32 MessEG (excerpt):

§ 32 Reporting obligation (1) Anyone using new or renewed measuring devices must report them to the competent authority under state law no later than six weeks after commissioning...

9. As far as it is deemed necessary by authorized authorities, the user of the measuring device must provide the complete content of the dedicated local or the storage at the EMSP or backend system with all data packets of the billing period.

10. The user of this product must ensure that tariff information displayed in the case of spot charging on the info display of the charging facility or an informative display of a payment terminal matches the tariff information in the legally trustworthy display and the signed data packet.

II Requirements for the user of measurement values from the charging facility (EMSP)

The user of the measurement values must observe § 33 of the MessEG:

§ 33 MessEG (quote)

§ 33 Requirements for the use of measurement values

(1) Values for measured quantities may only be stated or used in business or official transactions or in measurements in the public interest if a measuring device has been used in accordance with its intended purpose for their determination and the values can be traced back to the respective measurement result, unless otherwise provided in the legal regulation according to § 41 number 2.

Other federal legal regulations serving comparable protection purposes continue to apply.

(2) Anyone using measurement values must ensure, to the best of their ability, that the measuring device meets the legal requirements and must have the person using the measuring device confirm that they have fulfilled their obligations.

(3) Anyone who uses measurement values has

1. to ensure that invoices based on measurement values can be easily verified by the person for whom the invoices are intended, and

2. to provide suitable aids if necessary for the purposes mentioned in number 1.

For the user of the measurement values, this regulation specifically creates the following obligations for compliant use of measurement values:

The contract between EMSP and customers must clearly state that only the delivery of electrical energy and not the duration of the charging service is the subject of the contract.

1. The timestamps on the measurement values come from a clock in the charging facility that is not certified according to measurement and calibration law.

2. They may therefore not be used for the billing of measurement values. The EMSP must ensure that a receipt of the measurement, including the details for determining the business transaction, is automatically provided to the customer after the measurement is completed and no later than at the time of invoicing, as long as the customer does not expressly waive this.

3. The details for determining the business transaction may include the following:
   a. Name of the EMSP
   b. Start and end time of the charging process
   c. Charged energy in kWh
   d. Credit card number

If the customer requests proof of the correct transfer of the measurement results from the charging facility to the invoice, the user of the measurement value is obliged to provide this according to MessEG, § 33, para.

4. (3). If the customer requests a trustworthy permanent proof according to. According to Annex 2 10.2 MessEV, the measurement value user is obliged to provide this to him. The EMSP must inform its customers about these obligations in an appropriate manner.

This can be done, for example, in the following ways and depending on the authentication method:

a. When charging with a continuous liability relationship via the textual contract

b. When charging at a specific point (ad-hoc charging) using a (contactless) cash card along with the receipt via a short link in the purpose of use in the account statement

5. The EMSP must automatically provide the customer with the billing-relevant data packets after the measurement is completed and at the latest at the time of invoicing, including a signature as a data file in a way that they can be checked for authenticity using the transparency and display software. The provision of data packets can occur via legally unverified channels in the following ways and depending on the authentication method:

a. When charging with a continuous liability relationship via an email or access to a backend system

b. When charging at a specific point (ad-hoc charging) using a (contactless) cash card via a short link in the purpose of use in the account statement and a related access to a retrieval platform, where the information mentioned in point 3 for determining the business transaction is queried, so that the customer obtains permanent proof. Only information for determining the business transaction may be queried that can also be found in the customer's account statement.

Additionally, the EMSP must make the transparency and display software belonging to the charging device available to the customer for checking the data packets for authenticity. This can be done by referring to the source in the user manual for the customer or through the channels mentioned above.

6. The EMSP must be able to demonstrate in a verifiable manner which identification means was used to initiate the charging process associated with a specific measurement value. That is, he must be able to prove for each business transaction and billed measurement value that he has correctly assigned the personal identification data to it. The EMSP must inform its customers about this obligation in an appropriate manner.

7. The EMSP may only use values for billing purposes for which data packets are available in a possibly existing dedicated storage in the charging device and/or the storage at the EMSP or backend system. Substitute values may not be created for billing purposes.

8. The EMSP must ensure through appropriate agreements with the operator of the charging device that the data packets used for billing purposes are stored long enough to fully complete the associated business transactions.

9. The EMSP must enable authentication on the copies of the product belonging to this operating manual by providing suitable identification means in the case of justified need reporting for the purpose of conducting calibrations, inspection tests, and usage monitoring measures.

10. All the aforementioned obligations apply to the EMSP as a measurement value user in the sense of

§ 33 MessEG even if it obtains the measurement values from the charging devices via a roaming service provider.

20 - ERROR AND FAULT CONDITIONS

There are two types of errors or faults:

- **General errors:** This malfunction or error affects all four outputs.
- **Error in charge delivery:** Only one socket or plug is affected by this malfunction or error.

20.1 - ERROR CONDITIONS

Problem	Possible causes	Recommended solutions
Power interruption	A power outage has occurred or the mains voltage is not within the specified range.	Ensure that the input circuit breakers are activated and that the input voltage range and rotation direction match the specifications in the installation manual.
Fan failure	The fan is not functioning properly.	Check the fans. Remove or clean all items that may obstruct the rotation of the fan blades.
The CCS output power is not available.	Residual current circuit breaker (RCCB) activated.	First, check the cable insulation. Turn on the residual current circuit breaker (RCCB). (See the section "CIRCUIT BREAKER POSITIONS FOR LOAD OUTPUTS"). Check if the station is functioning.
No output available.	General error.	Please check if there is a power outage. Then check the circuit breaker of the upstream distribution box. If the outputs still do not work, please contact the authorized customer service.

21 - MAINTENANCE

The device is maintenance-free. The deadlines for the validity of the calibration must be observed for the electricity meter and the charging station.

Conformity with the points listed in the chapters “Model description”, “Technical specifications” and “Legal information” must be guaranteed over the entire service life of the product. The user must not exceed the validity period for the calibration of the meter and the charging stations. If the calibration period is exceeded, please contact the manufacturer so that an authorized technical service company can replace the measuring device in the charging station.

22 - LISTE OF PERIODIC MAINTENANCE TASKS

	Maintenance period (years)									
	1	2	3	4	5	6	7	8	9	10
Air filter	R	R	R	R	R	R	R	R	R	R
Mains plug	I	I	I	I	I	I	I	I	I	I
Screen	C	C	C	C	C	C	C	C	C	C
Distribution elements (MCCB, MCB RCCB)	T	T	T	T	T	T	T	T	T	T
AC input terminals	T	T	T	T	T	T	T	T	T	T
Blower	I	I	I	I	I	I	I	I	I	I
DC relay terminals	T	T	T	T	T	T	T	T	T	T
DC output cable and connection terminals	T	T	T	T	T	T	T	T	T	T
Housing	C	C	C	C	C	C	C	C	C	C
Earthing resistance	M	M	M	M	M	M	M	M	M	M
Liquid cooling unit	I	I	I	I	I	I	I	I	I	I
Liquid of the liquid cooling unit	I	I	I	I	R	I	I	I	I	R

C : Cleaning

I : Check (check, confirm, clean, tighten or replace if necessary)

M: Fairs

T : Tighten

R : Change

Air filter

Air filters should be changed every year as part of regular maintenance.

Mains plug

All plugs should be checked regularly as part of regular maintenance. If the plug is broken or cracked, it must be replaced. In addition, a test charge should be carried out with all plugs.

Screen

As part of regular maintenance, the screen should be checked by pressing the touchscreen. Its functionality can be checked by pressing all functions on the screen. If the touch functions of the screen are working properly, the screen should be cleaned.

Distribution elements (MCCB, MCB RCCB)

The distributor elements (MCCB, MCB RCCB) should be checked and tightened as part of regular maintenance. They can be tightened to a torque of 13 nm.

AC input terminals

The AC input terminals should be checked and tightened as part of regular maintenance. They should be tightened to 8 nm for M8 screws and 10 nm for M10 screws.

Blower

The fans should be checked regularly as part of regular maintenance. In the event of breakage or damage, the damaged fan must be replaced. If the fans are working properly, a test charge should be carried out. Check whether the fans are rotating during the charging process.

DC relay terminals

The DC relay terminals should be checked and tightened as part of regular maintenance. The tightening process should be carried out at 6.5 nm.

DC output cable and connection terminals

The DC output cable and the terminals should be checked regularly as part of regular maintenance. They must be checked regularly for damage.

Housing

The outer casing should be checked regularly as part of regular maintenance.

Earthing resistance

As part of regular maintenance, routine checks should always be carried out using an insulation measuring device (e.g. from Megger). The voltage between the two stacks should be less than 1 V.

Liquid cooling unit **

As part of regular maintenance, a test charge should be carried out with the liquid-cooled plug (gun). During the charging process, ensure that liquid flows out of the lines in the liquid cooling unit after a waiting time of 5 minutes.

Liquid of the liquid cooling unit **

The liquid in the liquid cooling unit should be checked as part of regular maintenance. If there are particles in the liquid, it must be changed. The fluid should also be replaced every 5 years

**** Units are only available for EVC03-HP products. A detailed explanation can be found in the Liquid cooling section of the maintenance manual.**

23 - TECHNICAL DATA OF THE WLAN TRANSMITTER

Frequency ranges	Max. Output power
2400 - 2483.5 MHz (CH1 - CH13)	<100 mW
5150 - 5250 MHz (CH36 - CH48)	<200 mW **(*)**
5250 - 5350 MHz (CH52 - CH64)	<200 mW **(*)**
5470 - 5725 MHz (CH100 - CH140)	<200 mW **(*)**

(*) '<100 mW' for Ukraine

Country restrictions

This WLAN device is intended for use in homes and offices in all EU countries, Great Britain and Northern Ireland (as well as all countries that follow the relevant EU and/or UK regulations). For the 5.15-5.35 GHz frequency band, the restriction applies to indoor use only in all EU countries, Great Britain and Northern Ireland (as well as all countries that follow the relevant EU and/or UK regulations). Public use is subject to general authorization by the respective service provider

Country	Restriction
Russian Federation	For indoor use only
Israel	5 GHz band only for the range from 5180 MHz to 5320 MHz

The regulations of the individual countries can change at any time. It is recommended that users check with the relevant authorities for the current status of the regulations in force in the country with regard to 2.4 GHz and 5 GHz LANS.

Vestel Mobilite SAN. VE TİC. A.Ş., hereby declares that the radio equipment type of the EVC complies with EU Directive 2014/53/EU and the UK Radio Equipment Regulations 2017. The full text of the EU Declaration of Conformity can be viewed at the following Internet address: doc.vosshub.com.

VESTEL

MOBILITY

CE

Hersteller: VESTEL MOBİLİTE SANAYİ VE TİCARET A.Ş. EGE SERBEST BÖLGE ŞUBESİ
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Im Service-oder Garantiefall kontaktieren Sie uns bitte über:
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Unsere Garantiebedingungen für EV-Charger finden Sie unter:
http://vestel-germany.de/de/page/service