



ELECTRIC VEHICLE CHARGER EVC12 VESPER SERIES

User Manual



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1 - SAFETY INFORMATION



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



AC grid connection and load planning of the electric vehicle charging device shall be reviewed and approved by authorities as specified by the regional or national electric regulations and standards in effect. For multiple electric vehicle charger installations the load plan shall be established accordingly. The manufacturer shall not be held liable directly or indirectly for any reason whatsoever in the event of damages and risks that are borne of errors due to AC grid supply 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 - Read these instructions fully before installing or operating

1.1 - SAFETY WARNINGS

- Keep this manual in a safe place. These safety and operating instructions must be kept in a safe place for future reference.
- Check that the voltage marked on the rating label and do not use charging station without appropriate mains voltage.
- Do not continue to operate the unit if you are in any doubt about it working normally, or if it is damaged in any way - switch off the mains supply circuit breakers (MCCB and RCD) in upstream distribution panel. Consult your local dealer.
- The ambient temperature range during charging should be between -35°C and $+50^{\circ}\text{C}$ (without direct sunlight) and at a relative humidity of between 5 % and 95 %. Use the charging station only within these specified operating parameters.
- The device location should be best selected to avoid excessive heating of the charging station. High operating temperature caused by direct sunlight or heating sources, may cause reduction of charging current or temporary interruption of charging process.
- The charging station is intended for outdoor and indoor use. It can also be used in public places.

- To reduce the risk of fire, electric shock or product damage, do not expose this unit to severe rain, snow, electrical storm or other severe weathers. Moreover, the charging station shall not be exposed to spilled or splashed liquids.
- Do not touch end terminals, electric vehicle connector and other hazardous live parts of the charging station with sharp metallic objects.
- Avoid exposure to heat sources and place the unit away from flammable, explosive, harsh, or combustible materials, chemicals, or vapors.
- Risk of Explosion. This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors. It should not be located in a recessed area or below floor level.
- To prevent risk of explosion and electric shock, ensure that the specified Circuit Breaker and RCD are connected to building grid.
- Charging Station bottom must be at (or above) the ground level.
- Adaptors or conversion adapters are not allowed to be used. Cable extension sets are not allowed to be used.



WARNING: Never let people (including children) with reduced physical, sensory or mental capabilities or lack of experience and or knowledge use electrical devices unsupervised.



CAUTION: This vehicle charger unit is intended only for charging electric vehicles not requiring ventilation during charging.

1.2 - INSTRUCTIONS FOR DEALING WITH A FIRE AT CHARGING STATION

- Personal Safety: If you notice a fire or signs of danger, your own safety is the most important. Do not take risks.
- Immediate Notification of Emergency Services: Contact the appropriate emergency services in your region. Dial 998 or 112 the emergency number.
- Discontinuing Charging: If safe to do so, disconnect the charging cable from the vehicle and the charging station.
- Use of Fire Extinguishing Agents: If a fire extinguisher or other fire-fighting equipment is nearby and you are trained to use them, attempt to extinguish the fire. However, never risk your own safety.
- Avoid Direct Contact with the Fire: Do not attempt to extinguish the fire if you do not have the appropriate equipment or knowledge, or if the fire is too large or dangerous.
- Move Away from the Station: If the fire is uncontrolled or growing in strength, move away from the charging station while maintaining a safe distance.
- Avoid Inhaling Smoke: Try to avoid inhaling smoke. If possible, cover your nose and mouth with a damp cloth or clothing.
- Warn Others in the Area: Inform others in the vicinity about the fire hazard and encourage them to leave the area.
- Wait for Emergency Services: After safely leaving the area, wait for the arrival of emergency services at a location that is safe for you.
- No Return to the Station Premises: Do not return to the charging station premises until the emergency services have completed their operation.
- Reporting the Incident: Contact customer support to report the incident.

Remember, safety is paramount. In the event of a fire, always consult with local emergency services and follow their instructions.

1.3 - GROUND CONNECTION WARNINGS

- Charging station must be connected to a centrally grounded system. The ground conductor entering the charging station must be connected to the equipment grounding lug inside the charger. This should be run with circuit conductors and connected to the equipment grounding bar or lead on the charging station. Connections to the charging station are the responsibility of the installer and purchaser.
- To reduce the risk of electrical shock, connect only to properly grounded outlets.
- **WARNING** : Make sure that during installing and using, the charging station is constantly and properly grounded.

1.4 - POWER CABLES, PLUGS and CHARGING CABLE WARNINGS

- Be sure that plugs and sockets are compatible on charging station side.
- A damaged charging cable can cause fire or give you an electric shock. Do not use this product if the flexible Charging cable or vehicle cable is frayed, has broken insulation, or shows any other signs of damage.
- Ensure that the charge cable is well positioned thus; it will not be stepped on, tripped over, or subjected to damage or stress.
- Do not forcefully pull the charge cable or damage it with sharp objects.
- Never touch the power cable/plug or vehicle cable with wet hands as this could cause a short circuit or electric shock.
- To avoid a risk of fire or electric shock, do not use this device with an extension cable. If the mains cable or vehicle cable is damaged it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a hazard.
- Use appropriate protection when connecting to the main power distribution cable.

2 - DESCRIPTION

This product was developed for charging electric vehicles with a suitable charging system in accordance with the IEC 61851-1 standard for the pilot standard signal. This document describes the specific functions and characteristics of the corresponding variants of charging stations and measuring devices in relation to electrical energy in accordance with § 46 of the German Measurement and Verification Ordinance (MessEV), taking into account PTB-A 50.7 and PTB-REA document 6-A.

Only the following models are certified in accordance with MessEG and MessEV:

EVC12-DC40C-EICH

In accordance with the German Measurement and Calibration Act, the charging station can be billed according to kWh. You can consult the German Measurement and Verification Act, which is described in **chapter 18**.

Model Name	EVC12-DC Series (Name coding: EVC12-DC40C-EICH) 1st Asterisk (*) : Rated Power 40 : 40 kW DC Power Output 2nd Asterisk (*) : DC output combination 1 C : CCS Output 3rd Asterisk (*) : Meter Option Blank : No MID meter -MID : MID meter -EICH : Eichrecht Meter
Cabinet	EVC12-DC40C

3 - TECHNICAL SPECIFICATIONS

Model		EVC12-40C-EICH
IEC Protection class		Class I
Power Input	Input Rating	230/400 Vac $\pm 10\%$, 50/60 Hz, 61A /3 Phase
	Connection	3L – N - PE
	Residual Current Monitoring	230Vac RCBO 1P+N, Type A, 30mA
	Power Factor	> 0.98
	Efficiency	> % 95
CCS Output	Max Power	40 kW
	Voltage Range	200 – 920 V
	Maximum Current	133A
	Minimum current	4A
	Min. Energy for guaranteed accuracy	1 kWh
	Interface Compliance	IEC 62196-1 / 3 IEC 61851-1 / 23 / 24 ISO 15118-1 / 2 / 3 DIN 70121 REA-Dokument 6-A PTB-A 50.7 PTB A 50.8

4 - USER INTERFACE & AUTHENTICATION

Display	7" Color TFT LCD without Touch Screen (16:9)
RFID Reader Module	ISO/IEC 14443A/B and ISO/IEC15693
User Interface	Illuminated buttons
Payment module	Optional Contactless module
Plug&Charge	ISO15118
DC MID Meter	Eichrecht Conformity

5 - CONNECTIVITY

LAN Connectivity	10/100 Mbps Ethernet
WLAN Connectivity	2.4GHz/5GHz: 802.11 a/b/g/n/ac
Mobile Connectivity	GSM 900/1800 UMTS 900/2100 LTE Band 1/3/7/8/20/28A
OCPP Specification	OCPP 1.6 J

6 - MECHANIC SPECIFICATIONS

Material	Sheet Metal	
Protection Degree	Ingress Protection Impact Protection	IP54 IK10
Cooling	Forced Air Cooling Fan	
Cable Length	CCS2: 3,5m(default) or 5m(option)	
Dimensions (Product)	Height:635 mm Width:630 mm Depth:250 mm	
Dimensions (with packing)	1000 x 850 x 560 mm (H x W x D)	
Weight (Product)	80kg	
Weight with Package	135kg	

7 - ENVIRONMENTAL TECHNICAL SPECIFICATIONS








Operating Condition	Temperature	-35°C to +50 °C (Derating is applied over +40 °C to 50 °C) For products with credit card option -20 °C to + 50 °C
	Humidity	5 % - 95 % (Relative humidity, non-condensing)
	Altitude	0 - 2000m

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

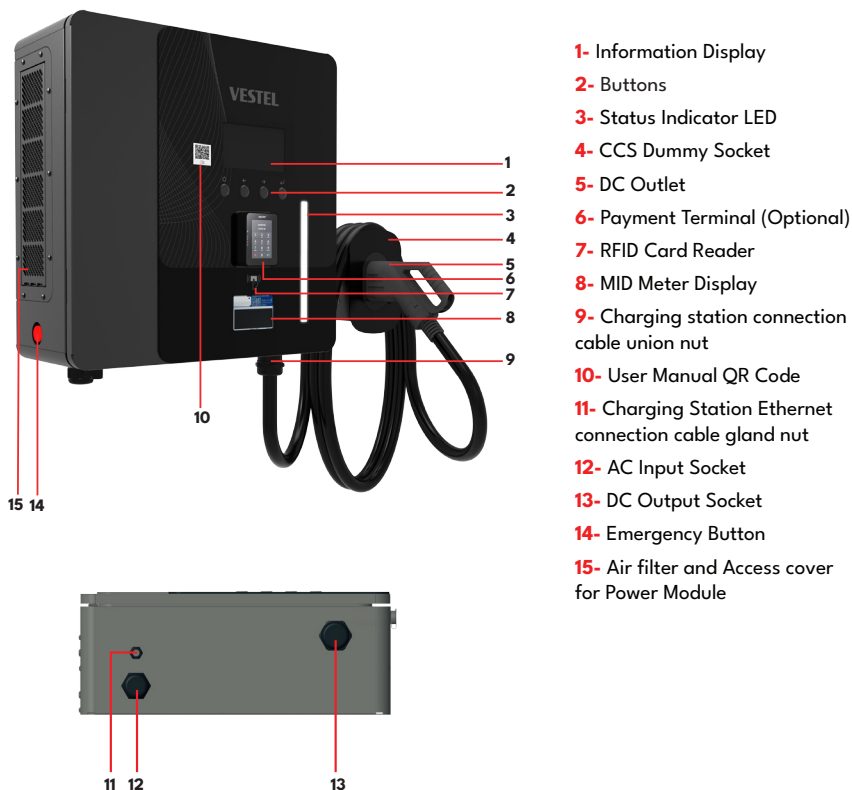
Modell	DCBM400N1M
Manufacturer	LEM
Sign of the type test certificate	DE-20-M-PTB-0075, Revision 4
Iref [A]	80
I_{max} [A]	400
I_{min} [A]	4
Meter constant [imp./kwh]	1000
Un [V]	150/1000 V
Frequenz [Hz]	50/60 Hz
Operating temperature	-25...+70 °C
Accuracy class	B
Firmware version (measuring device unit)	2.3.0.1
Firmware version (sensor unit)	0.0.8.0
Checksum of the firmware (measuring device unit)	0x7BE605E0439539EECE15E856
Checksum of the firmware (sensor unit)	0x3CB8

9 - BEHAVIOR OF STATUS INFORMATION LED

STATUS OF LED		MODE
	White Glowing	When the product is initialized.
	Green Illuminates Steadily	While the product is in standby. (No charge).
	Blue Illuminates Steadily	When the cable is inserted to EV.
	Charge percentage is according to the number of leds, one led blinks.	While Charging.
	Blue Illuminates Steadily	Charging is suspended or finished.
	Red Illuminates Steadily	Error.
	Blue until plug is removed.	Charging is finished.

10 - GENERAL INFORMATION

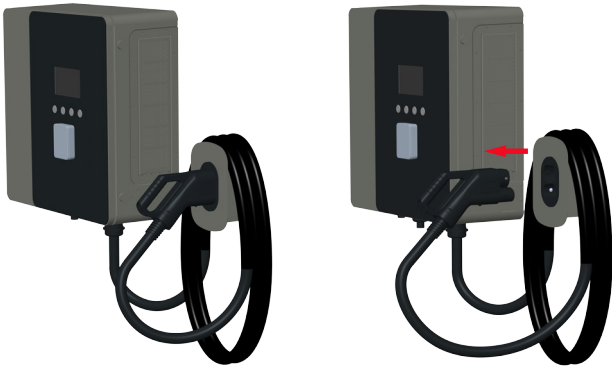
10.1 - INTRODUCTION OF THE PRODUCT COMPONENTS



All products' images are given for representative purpose only

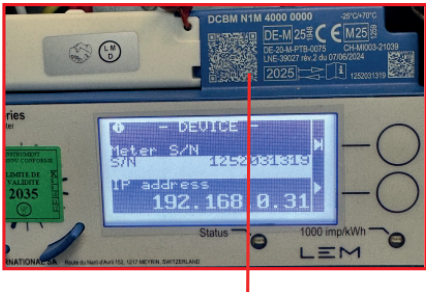
10.2 - CCS Outlet

Unplug the charging plug to remove it from the device. Then plug it into the vehicle to start charging.



10.3 - PUBLIC KEY

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



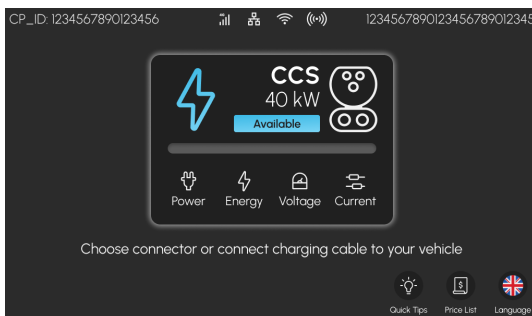
Information on the public key

Public key (for the measuring capsule, shown on the type plate of the charging station's measuring device in the form of a QR code).

11 - CHARGING SCENARIOS (INCLUDES ALL SCENARIOS)

Connect the charging cable to the socket plug/pull out the charging plug from the socket plug.

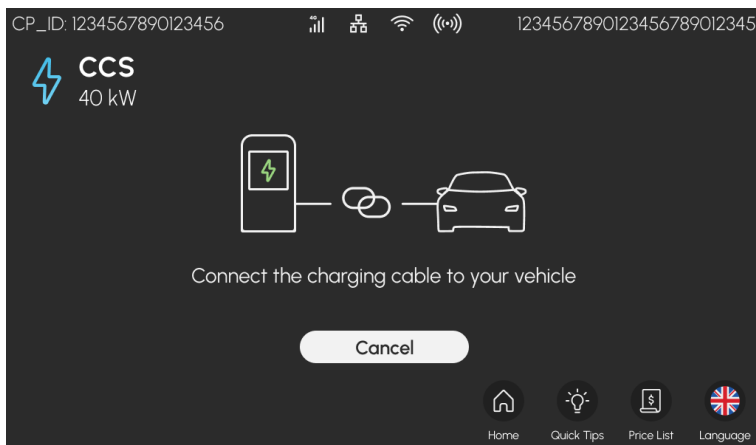
In the main screen on the charging station display, you may either tap the plug you want to use or simply connect the plug to the vehicle.



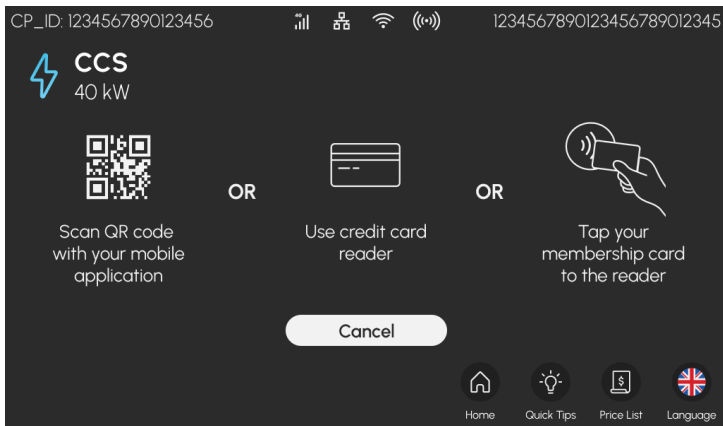
11.1 - DC CCS Outlet

11.1.1 - VEHICLE CONNECTION & CHARGING

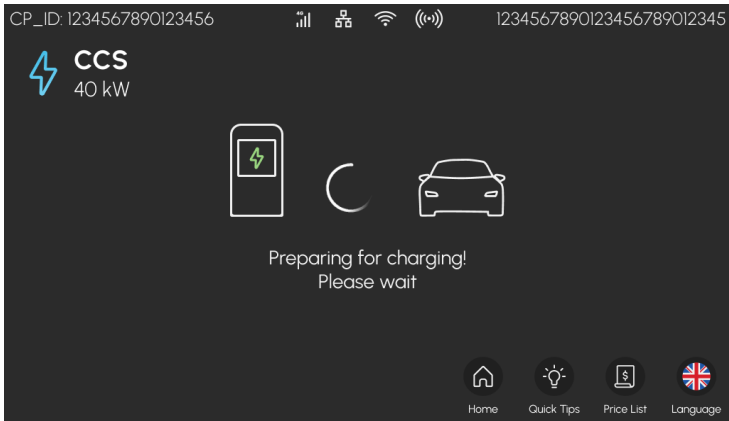
1- Connect charging cable to move to payment screen.



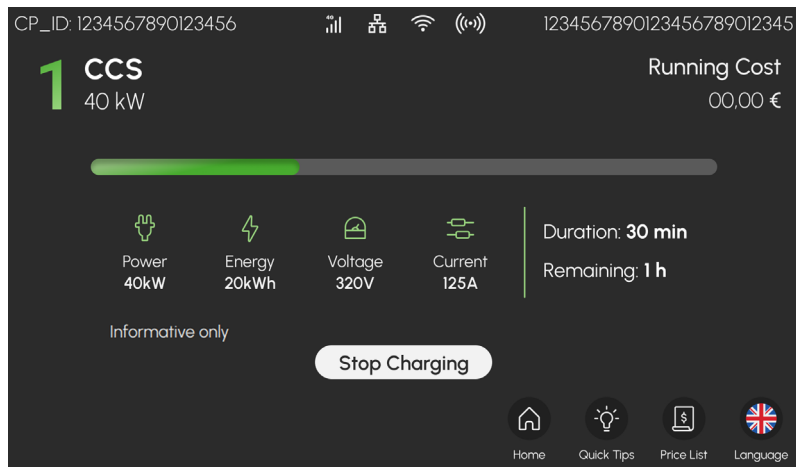
2- Tap your RFID card or scan QR Code to start charging. (If AutoCharge is set in Webconfig and vehicle registration is available in the system, charging starts without reading the RFID card)



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



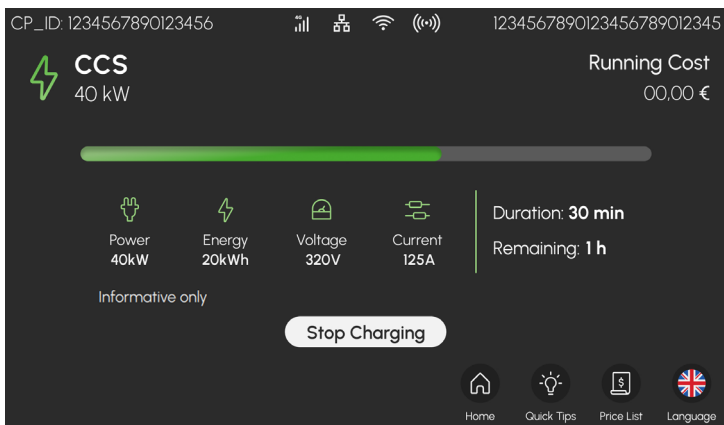
4- While charging, charging state can be seen in the main menu.



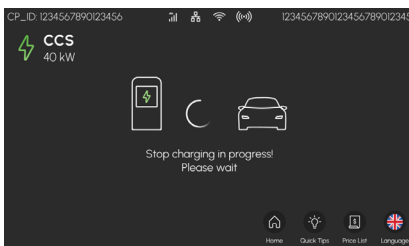
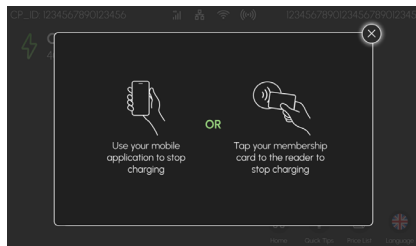
All products' images are given for representative purpose only

11.1.2 - STOP CHARGING

1- Click "Stop Charging" to end the charging session.

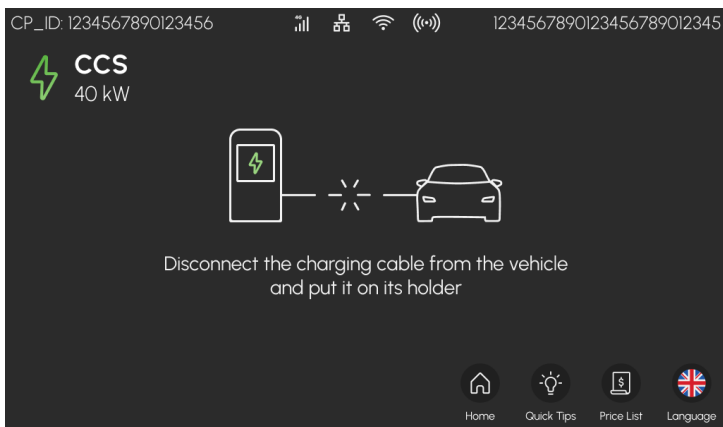


2- Scan your RFID card or scan QR Code to stop charging.



3- Disconnect the charging cable.

After disconnection, you will automatically move to the main screen.



11.1.3 - CHARGING COMPLETED

The charging process is successfully completed.

CP_ID: 1234567890123456

1234567890123456789012345

CCS

40 kW

Total Cost

56.28 €

Power

0kW

Energy

20kWh

Voltage

320V

Current

0 A

Duration: 30 min

Remaining: -

Informative only

Charge completed, thank you for choosing us!

Home

Quick Tips

Price List

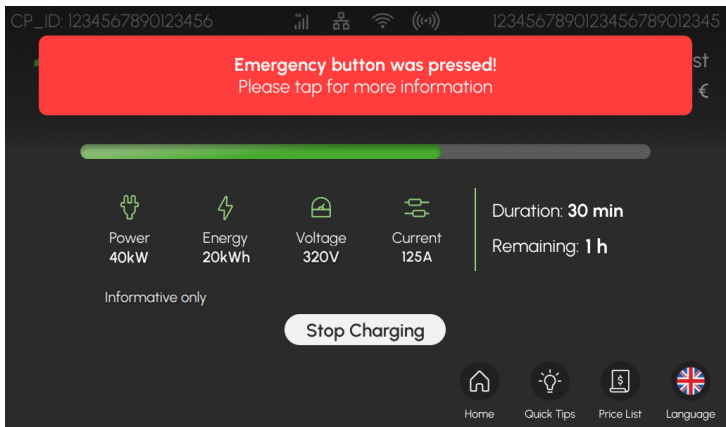
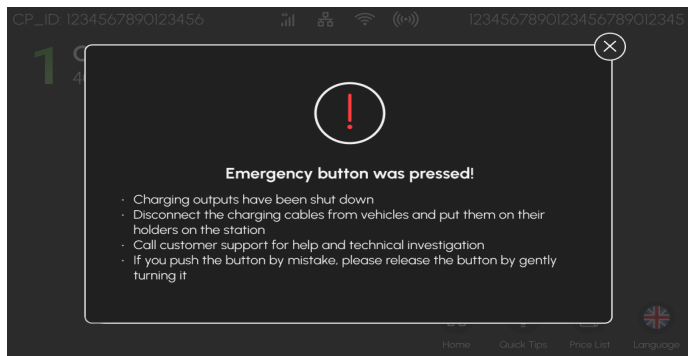
Language

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English - 16

11.1.4 - EMERGENCY STOP (Optional)


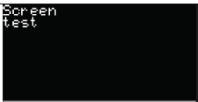
Please follow screen when emergency stop pressed.



12 - LCD DISPLAY

This display can be used to show the various measured values and the associated units and registers in plain text.

PRODUCT START DISPLAY

Screen	Description
 S/N: 912004900155545	Company logo Serial number of the device
Firmware versions: Meter Unit LR 2.3.0.1 Sensor Unit LR 0.0.8.0 Meter Unit LNR 2.3.0.1	Identifiers of the DCBM firmware versions
Firmware checksums: Meter Unit LR 7DE05E04395 39EECE15E856 Sensor Unit LR 540F	Integrity checks for legally relevant firmware components
Public key: ED7454E27FE38992A823 C8CC87E3CF8755318008 16A4404470CA5B80C8A34 4CAE4100567813E595F7 9FD99B1463E53E4E1285 B0F80588D62CE4D2E127 B46835B8	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 (optional) authentication methods have different information on the meter display energy register at the beginning of the transaction.

RFID/Autocharge

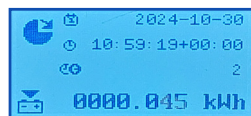


Credit card

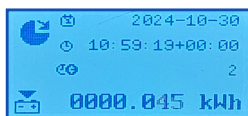


Date and time on site at the beginning of the transaction Total duration of the transaction

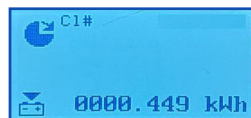
RFID/Autocharge



Credit card

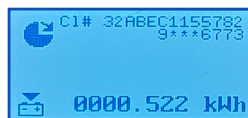


Customer RFID/Autocharge ID



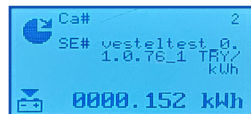
Customer credit card ID

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 charging point ID_Sw-Version_Tariff (chargepointid_Sw version_tariff) with currency

RFID/Autocharge

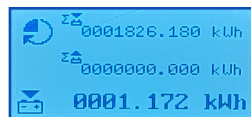


Credit card

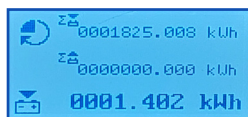


Energy register at the end of the transaction.

RFID/Autocharge

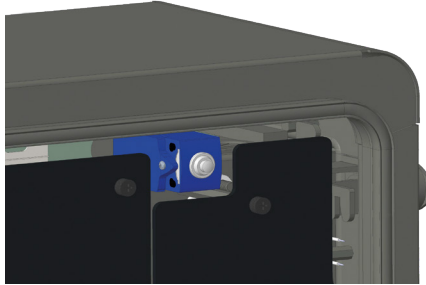


Credit card



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.

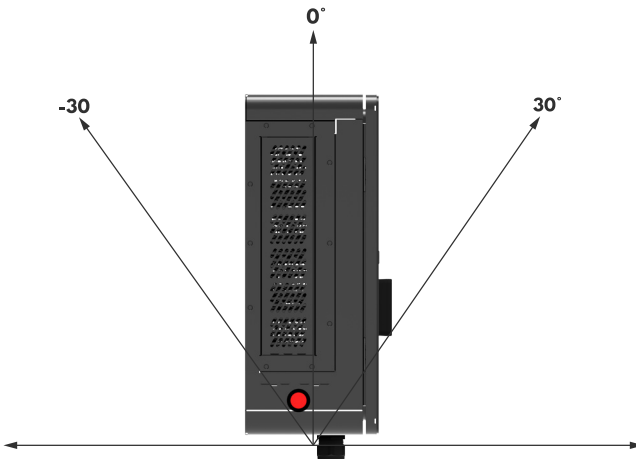


15 - TILT SENSOR

When the product reaches the predefined tilt angle in either the forward or reverse direction, the tilt sensor detects this condition and transmits the tilt angle information via OCPP. As a result, the sockets are disabled and the message “Out of Order” is displayed on the screen. However, the product remains energized.

In such cases, the charging station operator must manually disconnect the power from the energy panel to which the product is connected.

Note: The default tilt angle is set to 30 degrees. This value can be modified via the WEB UI interface.



16 - CHECKING THE VALIDITY OF THE MEASUREMENT

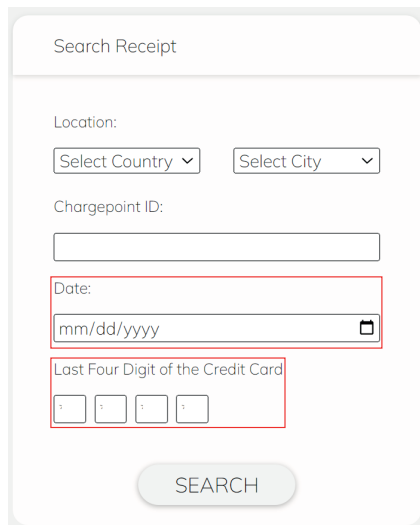
Data with transparency software

This section deals with billing, the transmission of legally relevant data and the billing procedure in accordance with the German Measurement and Verification Ordinance (MessEV).

With this charging station, the information on the progressive kWh display is shown on the MID display of the meter, which is approved in accordance with 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 electromobility provider.

If you complete the charging process using 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 once the charging process has been 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 transaction of the loading process by entering the last four credit card digits and the date in the mandatory fields. To better filter the charging transactions, you can also enter optional fields such as city, country or the ID of the charging station.



A screenshot of a 'Search Receipt' form. The form is light gray with rounded corners. At the top, it says 'Search Receipt'. Below this, there are several input fields: 'Location:' with 'Select Country' and 'Select City' dropdown menus; 'Chargepoint ID:' with a text input field; 'Date:' with a date picker showing 'mm/dd/yyyy'; and 'Last Four Digit of the Credit Card' with four individual digit input boxes. A red rectangle highlights the 'Date' and 'Last Four Digit of the Credit Card' fields. At the bottom, there is a 'SEARCH' button.

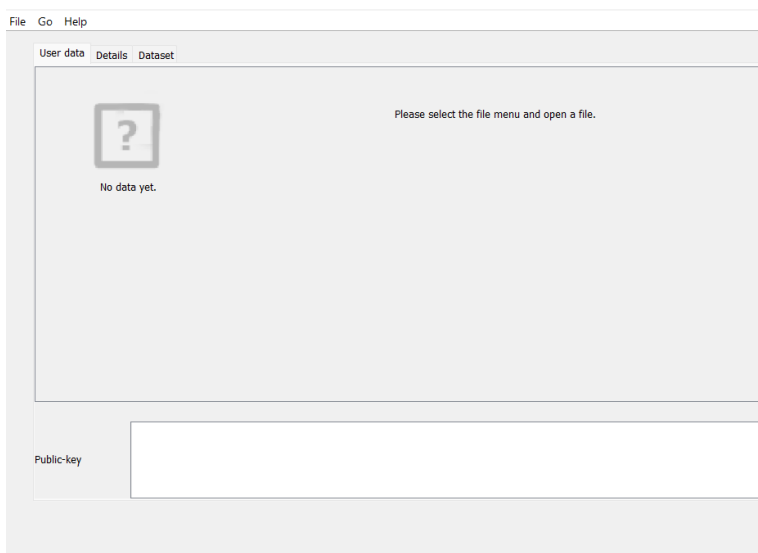
What is transparency software?

You can verify digital signatures with transparency software. Depending on its technical design, a charging station generates digitally signed meter readings for each charging process carried out at this charging station. Using these digital signatures, you can check the measured values with a time delay and thus ensure that no one has manipulated your measured values during 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



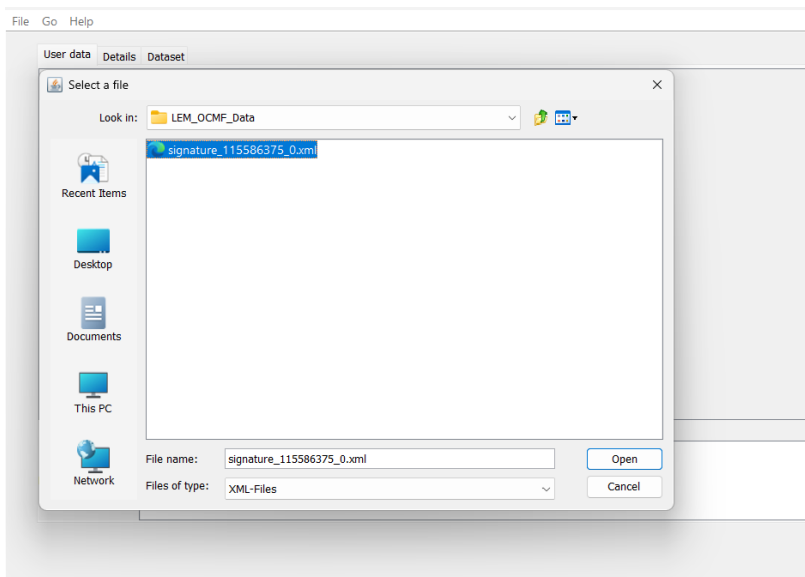
How does the transparency software work?

Transparency software v1.4.1

This software can be used to verify a digital signature. Depending on its technical equipment, a charging station generates a digitally signed meter reading that is linked to the charging station at which an electric vehicle is being charged. With this digital signature, the measured values can be checked with a time delay. As a consumer, you can therefore always be sure that the kWh charged are actually correct and that the measured values can no longer be changed 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

Check the result to make sure that the results of the digital signature verification match the information on your invoice or billing document.

FileGoHelp

User dataDetailsDataset



Your data has been verified

Meter

Metering value at start of charge transaction
85.027 kWh
24.03.2025 07:07:19 (*lokal*) (informative)

Metering value at reading moment (end of charge transaction)
113.233 kWh
24.03.2025 07:18:20 (*lokal*) (informative)

relevant measurement result for charging device utilization time
0h 11m 01s

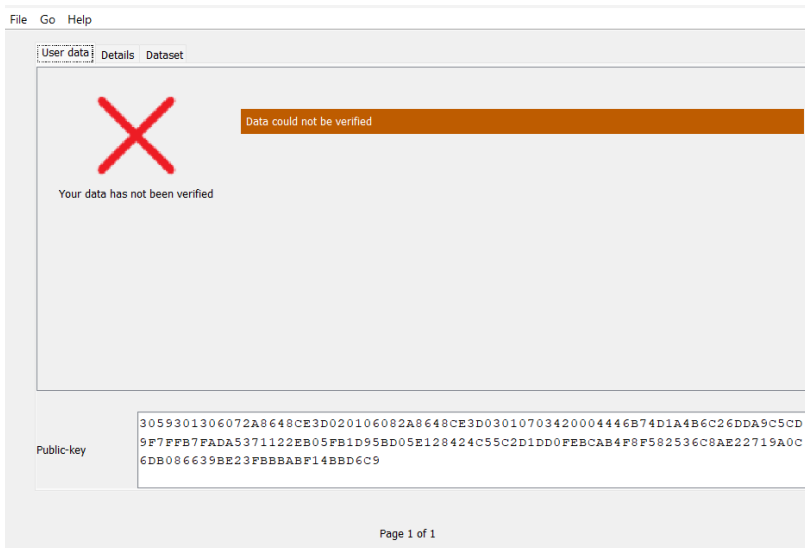
relevant measurement result for energy output and period of use
28.206 kWh

Public-key

3059301306072A8648CE3D020106082A8648CE3D03010703420004446B74D1A4B6C26DDA9C5CD9F7FFB7FADA5371122EB05FB1D95BD05E128424C55C2D1DD0FEB CAB4F8F582536C9AE22719A0C6DB086639BE23FB BBABF14BBD6C9

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If an incorrect public key is entered, the following error message is 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 data records to customers

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

Verification of the measurement data with the transparency and display software

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

The charging station has a public key. The public key is generally accessible and is indicated as a QR code on the type plate of the charging station's measuring unit. The charging station creates a data set with measurement data that is stored in the measuring capsule. The operator of the charging station then creates the invoice based on the signed measurement data record. In addition to the signed measurement data, the public key must also be provided on the invoice or in a customer portal in a format that is compatible with the transparency and display software.

After receiving the invoice, the consumer can enter the digitally signed measured values together with the public key into the transparency and display software. Verification of the signature gives

the consumer the opportunity to check the validity of the measured values. For this purpose, the consumer compares the values shown in the transparency and display software with the invoice contents. Validation of the measurement data record using transparency software ensures that the data record is unaltered and admissible for invoicing.

The transparency and display software checks the following data:

The public key as identifier of the charging station. The public key can also be found on the type plate of the charging station's measuring unit.

Correct measured energy value

Correct user/transaction ID

Checking the signed measurement data set

To check the measurement data set:

1) Download and install a Java runtime environment (this is available for all operating systems and is usually already 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 in the transparency and display software:

- the signed measurement data set
- the selection of the "OCMF" format
- the public key of the corresponding charging station

File Go Help	
User data Details Dataset	
Vendor-Identification	LEM DCBM
Vendor-Version	v1
Pagination of the dataset	T12
Meter-Vendor	LEM
Meter-Serialnumber	1233421204
Meter firmware version	MU-2.3.0.1_SU-0.1.3.0
Identificationmedia status	false
Identificationmedia level	-
Additional information of identification media	RFID_NONE, OCPP_NONE, ISO15118_NONE, PLMN_NONE
Identificationmedia type	NONE
Identificationmedia data	8C18100C
Single value 1	2025-03-24T07:07:19,000+0000 R 85.027 kWh
Time status at reading 1	relative time based calculation
Single value 2	- 7.591 kWh
Single value 3	2025-03-24T07:18:20,000+0000 R 113.233 kWh
Time status at reading 3	relative time based calculation
Single value 4	- 7.591 kWh

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File Go Help

User dataDetailsDataset

OCMF|{"FV":"1.0","GI":"LEMDCBM","GS":"1233421204","GV":"v1","PG":"T12","MV":"LEM","MS":"1233421204","MF":"MU-2.3.0.1_SU-0.1.3.0","IS":false,"IL":"-","IF":["RFID_NONE","OCPP_NONE","ISO15118_NONE","PLMN_NONE"],"IT":"NONE","ID":"8C18100C","CT":"EVSEID","CI":"murat_test_0.3.0.28_0.0TL/kWh","RD":[{"TM":"2025-03-24T07:07:19,000+0000R","TX":"B","RV":85.027,"RI":"1-0:1.8.0","RU":"kWh","RT":"DC","EP":"","ST":"G","UC":{"UN":"No_Comp","UI":2,"UR":0}},{"RV":7.591,"RI":"1-0:2.8.0","RU":"kWh","ST":"G"},"TM":"2025-03-24T07:18:20,000+0000R","TX":"E","RV":113.233,"RI":"1-0:1.8.0","RU":"kWh","ST":"G"},"RV":7.591,"RI":"1-0:2.8.0","RU":"kWh","ST":"G"}},{"SA":"ECDSA-secp256r1-SHA256","SD":"3045022100B2A426DEE987D699CB115B0DC9875125B0C58F3C93AE8E39864795B2674FEE002207F2C00E60DC1C866E303CA92C72125762F3CF19C218E9A5255C1561C19D37884"}

FormatOCMF

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- 4) Once you have entered the required data, you can start the check.
- 5) Once this check has been completed, it must be checked whether the results of the signature check match the information on the invoice.

File Go Help

Opened dataset

Transaction id 35135
Single value 0 (Transaction.Begin)
Single value 1 (Transaction.End)

User dataDetailsDataset



Your data has been verified

Meter

Metering value at start of charge transaction
29.198 kWh
10.09.2025 07:21:59 (local) (informative)

29.198 kWh
10.09.2025 07:21:59 (local) (informative)

Public-key

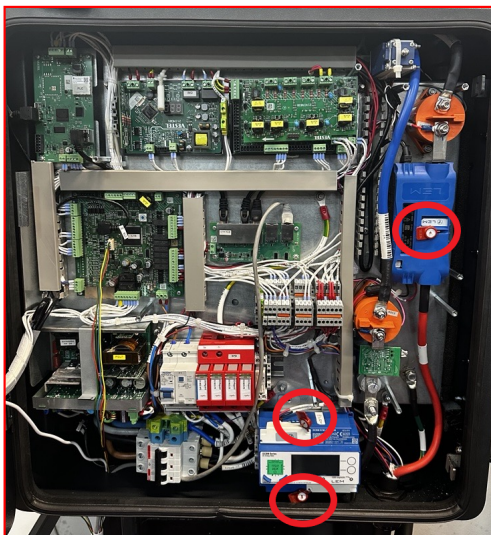
3059301306072A8648CE3D020106082A8648CE3D03010703420004B
BB64FBA73C724BEB2125D311F9AF02267DB85C565F9B33E0401DB01
8689275C1FA3C934085CE57D098454F4965FFB3EB96092A5ECC2F96
FDC095D4DED5780F2

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17 - OVERVIEW OF THE CHARGING STATION WITH DESCRIPTION OF THE MANUFACTURER'S SEALS

17.1 - 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 EVC12 calibration law product seals. The sections circled in red indicate the manufacturer's seal.



Vorderansicht
der Siegel



Rückseite
der Siegel



17.2 - RECOMMENDED POSITION OF THE OPERATOR SEAL

The recommended place for the operator to seal is as shown in the image below.

The parts circled in red indicate the operator’s seal. It is recommended to seal the input terminal after the cable is connected to product the during the electric vehicle charger installation.



18 - LEGAL INFORMATION

18.1 - MEASUREMENT ACCURACY NOTES ACCORDING TO CSA TYPE EXAMINATION CERTIFICATE

I Requirements for the operator of the charging system, which he must fulfill as a necessary prerequisite for proper operation of the charging system.

The operator of the charging device is the user of the measuring device within the meaning of Section 31 of the Measurement and Verification Act.

1. The charging device is only considered to be used as intended and in compliance with calibration law if the meters installed in it are not exposed to ambient conditions other than those for which their type examination certificate was issued.
2. The charging device is only considered to be used as intended and in compliance with calibration law 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. When registering the charging points with the Federal Network Agency, the user of this product must also register the public key specified on the charging device for the charging points in their registration form! Without this registration, it is not possible to operate the column in compliance with calibration law. 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 device and for the charging device itself are not exceeded.
5. The user of this product must ensure that charging devices are taken out of operation promptly if operation in compliance with calibration law is no longer possible due to fault or error indications on the display of the human-machine interface relevant to calibration law. The catalog of fault and error messages in these operating instructions must be observed.
6. The User must store the signed data packets read from the loading device - in accordance with the pagination - permanently and without gaps (also) on hardware dedicated to this purpose in his possession or, by corresponding agreement, in the possession of the EMSP or backend system ("dedicated storage"), - and keep them available for authorized third parties (obligation to operate the storage). Permanent means that the data must be stored not only until the conclusion of the business transaction, but at least until the expiry of any statutory appeal periods for the business transaction. No substitute values may be created for billing purposes for data that is not available.
7. The user of this product shall provide an electronic form of a CSA-approved instruction manual to measurement users who receive and use measurements from this product in the course of their business. The user of this product must pay particular attention to the no. II "Requirements for the user of the measured values from the loading device".
8. The user of this product is subject to the notification obligation in accordance with § 32 MessEG (extract):

§ Section 32 Obligation to notify (1) Anyone using new or renewed measuring devices must notify the competent authority in accordance with federal state law no later than six weeks after commissioning...

9. If deemed necessary by authorized authorities, the meter user must provide the complete content of the dedicated local or backend 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 shown on the info display of the charging device or an informative display of a payment terminal in the case of spot charging corresponds to the tariff information in the calibrated display and the signed data package.

II Requirements for the user of the measured values from the loading device (EMSP)

The user of the measured values must comply with § 33 of the MessEG:

§ 33 MessEG (quote)

§ 33 Requirements for the use of measured values

(1) Values for measured quantities may not be used in commercial or official dealings or for measurements in the

may only be indicated or used in the public interest if a measuring instrument has been used as intended for their determination and the values are attributable to the respective measurement result, unless otherwise specified in the ordinance pursuant to Section 41 number 2. Other federal regulations that serve comparable protection purposes continue to apply.

(2) Anyone using measured values must ensure, as far as possible, that the measuring device meets the legal requirements and must obtain confirmation from the person using the measuring device that they are fulfilling their obligations.

(3) Anyone who uses measured values must

1. to ensure that invoices, insofar as they are based on measured values, are issued by the person for whom the calculations can be easily reproduced to verify the specified measured values. and
2. to provide suitable aids for the purposes mentioned in number 1 if necessary.

For the user of the measured values, this regulation results in the following specific obligations for the use of measured values in compliance with calibration law:

1. The contract between EMSP and the customer must clearly state that only the supply of electrical energy and not the duration of the charging service is the subject of the contract.
2. The time stamps on the measured values originate from a clock in the charging device that is not certified in accordance with measurement and calibration law. They may therefore not be used to calculate a tariff for the measured values.
3. The EMSP must ensure that the customer is automatically sent a receipt of the measurement and the details for determining the transaction after completion of the measurement and at the latest at the time of invoicing, unless the customer expressly waives this. The details for determining the transaction can be as follows:
 - a. Name of the EMSP
 - b. Start and end time of the charging process
 - c. Charged energy in kWh
 - d. Credit card number
4. If the customer requests proof of the correct transfer of the measurement results from the charging device to the invoice, the user of the measured values is obliged to provide proof in accordance with MessEG, § 33, para. (3) is obliged to provide this. If the customer requests a trustworthy permanent proof in accordance with Annex 2 10.2 MessEV, the user of the measured values is obliged to supply it to him. The EMSP shall inform its customers of these obligations in an appropriate form.

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

- a. When charging with a continuing obligation via the textual contract
- b. For ad hoc charging using a (contactless) debit card together with the receipt via a short link in the purpose of use in the account statement

5. The EMSP must provide the customer with the billing-relevant data packages automatically after completion of metering and at the latest at the time of invoicing, including signature, as a data file in such a way that they can be checked for falsification using the transparency and display software. The data packets can be made available via channels that are not verified under calibration law in the following ways and depending on the authentication method:

- a. When loading with a continuing obligation via e-mail or access to a backend system
- b. In the case of ad hoc charging by means of a (contactless) debit card via a short link in the purpose of use in the account statement and associated access to a retrieval platform on which the information mentioned under point 3 is requested to determine the transaction, so that the customer receives the permanent proof. Only information that can also be found on the customer's account statement may be requested to determine the transaction.

In addition, the EMSP must provide the customer with the transparency and display software belonging to the charging device to check the data packets for falsification. This can be done by referring to the source of supply in the operating instructions for the customer or through the channels mentioned above.

6. The EMSP must be able to show in a verifiable manner which means of identification was used to initiate the charging process associated with a specific measured value. This means that he must be able to prove that he has correctly assigned the personal identification data to each business transaction and invoiced measured value. The EMSP shall inform its customers of this obligation in an appropriate form.

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

8. The EMSP must make appropriate agreements with the operator of the charging facility to ensure that the data packets used for billing purposes are stored for a sufficient period of time to complete the associated business transactions.

9. The EMSP shall enable the authentication of the copies of the product belonging to these operating instructions used by it by providing suitable means of identification in the event of a justified request for the purpose of carrying out calibrations, diagnostic tests and usage monitoring measures.

10. All of the aforementioned obligations apply to the EMSP as a user of measured values within the meaning of

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

19 - ERROR AND MALFUNCTION CONDITIONS

- There are two type of errors or faults:
- **General Errors:** This fault or error effects all two outputs.
- **Charging Output Errors:** Only one socket or plug effected by this fault or error condition.

19.1 - ERROR CONDITIONS

Problem	Possible Causes	Recommended Solutions
Power Failure	Power outage or the grid voltage is not in specified range.	Check input circuit breakers are not tripped and input voltage range and rotation is as specified in installation guideline.
CCS output unavailable	RCBO is tripped	Check cable isolation first. Turn on RCCB. (See section “CIRCUIT BREAKER LOCATIONS FOR CHARGING OUTPUTS”) Check functionality for the station output.
All outputs unavailable	General error	Please check if there is a power outage. Then, check the upstream distribution box circuit breaker. If the outputs are still unavailable please contact authorized service.

20 - CLEANING AND MAINTENANCE

DANGER

- Do not clean your electric vehicle charging device while charging your vehicle.
- Do not wash the device with water.
- Do not use abrasive cloths and detergents. Microfiber cloth is recommended.

21 - PERIODIC MAINTENANCE LIST

	Maintenance Period (years)									
	1	2	3	4	5	6	7	8	9	10
Air filters	R	R	R	R	R	R	R	R	R	R
Plugs	I	I	I	I	I	I	I	I	I	I
Screen	C	C	C	C	C	C	C	C	C	C
Distribution elements (MCB, RCBO)	T	T	T	T	T	T	T	T	T	T
AC input terminals	T	T	T	T	T	T	T	T	T	T
DC relay terminals	T	T	T	T	T	T	T	T	T	T
DC output cable and terminals	T	T	T	T	T	T	T	T	T	T
Body	C	C	C	C	C	C	C	C	C	C
Earthing resistance	M	M	M	M	M	M	M	M	M	M

C : Clean

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

M : Measure

T : Tighten

R : Revise

Air filters

Air filters should be changed every year when going for maintenance.

Plugs

All Plugs should be checked when going for maintenance. If the plug is broken or cracked, it should be replaced. In addition, a charge attempt should be made with all Plugs.

Display

During maintenance, the screen should be checked using the physical buttons, as the screen is non-touch. All functions can be controlled through these buttons. If there is no issue with the button operations, the screen should be cleaned.

Distribution elements (MCB, RCBO)

Distribution elements (MCB, RCBO) should be checked and tightened when going for maintenance. It can be tightened with a screwdriver with a torque of 2 Nm.

AC input terminals

When going for maintenance, AC input terminals should be checked and tightened. It should be tightened with 8 Nm for metric 8 bolts and 10 Nm for metric 10 bolts.

DC relay terminals

When going for maintenance, DC relay terminals should be checked and tightened. The tightening process should be applied with 6.5 Nm.

DC output cable and terminals

DC output cable and terminallet should be checked when going for maintenance. It should be checked for any damage.

Body

When going for maintenance, the outer cabinet should be cleaned.

Earthing resistance

When going for maintenance, a mechanism should be set up like measuring with meger. After the piles are driven, the voltage between the two piles should be less than 1V

22 - WIRELESS LAN TRANSMITTER SPECIFICATIONS

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 the Ukraine

Country Restrictions

This Wireless LAN equipment is intended for home and office use in all EU countries, the UK and Northern Ireland (and other countries following the relevant EU and/or UK directive). The 5.15 – 5.35 GHz band is restrictions indoor operations only in in all EU countries, the UK and Northern Ireland (and other countries following the relevant EU and/or UK directive). Public use is subject to general authorisation by the respective service provider.

Country	Restriction
Russian Federation	Indoor use only
Israel	5 GHz band only for 5180 MHz-5320 MHz range

The requirements for any country may change at any time. It's recommended that user checks with local authorities for the current status of their national regulations for both 2.4 GHz and 5 GHz wireless LANs.

Hereby, Vestel Mobilite SAN. VE TİC. A.Ş., declares that the radio equipment type EVC is in compliance with Directive 2014/53/EU and Radio Equipment Regulations 2017. The full text of the EU declaration of conformity is available at the following address: doc.vosshub.com.

VESTEL

MOBILITY



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