VESTEL
MOBILITY

ELECTRIC VEHICLE CHARGER
EVC15 VEGA DUAL 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.

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 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 (MCB and RCCB). Consult your local dealer.
- The ambient temperature range should be between –25 ˚C and +50 ˚C without direct sunlight and at a relative humidity of between 5 % and 95 %. Use the charging station only within these specified operating conditions.
- The device location should be 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.

- This device is intended only for charging vehicles not requiring ventilation during charging. This device is not support ventilation.
- To prevent risk of explosion and electric shock, ensure that the specified Circuit Breaker and RCD are connected to building grid.
- The lowest part of the socket-outlet shall be located at a height between 30 mm above ground level.
- Adaptors or conversion adapters are not allowed to be used. Cable extension sets are not allowed to be used.
- Use this product at an altitude of less than 3000 meters above sea level.
- This charging station is floor mounted.
- Do not place items filled with liquid, such as cups, bottles, etc., on the product.
- Keep the plastic packing materials out of the reach of babies, small children, and pets to avoid the danger of suffocation.
- Do not wash the device with water.
- Do not use abrasive clothes, wet clothes, alcohol, or detergents. A microfiber cloth is recommended.
- It should be kept in its original box in order not to damage the components of the device during transportation.
- Defects and damage that occur during transportation after the delivery of the product to the customer are not covered by the warranty.
- The product should be used under the porch.

“MANUFACTURER DOES NOT WARRANT THAT THE OPERATION OF THE PRODUCT WILL BE UNINTERRUPTED OR ERROR-FREE.”

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- GROUND CONNECTION WARNINGS

- This product must be connected to a grounded, metal, permanent wiring system. or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment grounding terminal or lead on the product.
- 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.

1.3- POWER CABLES, PLUGS and CHARGING CABLE WARNINGS

- Be sure that charging cable is Type 2 socket 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 charging cable is well positioned thus; it will not be stepped on, tripped over, or subjected to damage or stress.
- Do not forcefully pull the charging 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.

1.4 - REQUIRED UPSTREAM PROTECTIONS

- MCCB (Thermic Magnetic Adjustable) must be connected to the upstream distribution box.

Model	AC Socket1	AC Socket2	Power Output	Input Max AC Current	Recommended Cross Section for AC Mains	Required Circuit Breaker
EVC15-AC44	22	22	44 kW	64A	25-35 mm2	80A Curve-C

For distances of 50 meters and below, recommended cross section for AC mains can be applicable. For the distances more than 50 meters, the cable section calculation should be made by the electrical installer.

When selecting the installation location, take into consideration the minimum space needed for operating and maintenance. Note that EVC does not have hinges on the maintanance door!

When installing the unit, respect the minimum distances space for maintenance and safety reasons.

Please comply accordingly to your country specifications.

The next picture shows how it should be installed.

- Do not install near areas where water or fluids can penetrate into the unit.
- Do not install the unit in unstable terrain.

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:

EVC15-AC-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 7.

Model Name	**MODEL DESCRIPTION: EVC15-AC****-* EVC15 : Electric Vehicle AC Charger (Mechanical Cabinet 15) 1st Asterisk (*) : Rated Power 44 : 2 × 22 kW total power for both charging points (22 kW per charging point) 2nd Asterisk (*) Communication module Blank : No connectivity module except RFID reader W : Wi-Fi module L : LTE / 3G / 2G module P : ISO 15118 PLC module (Plug & Charge is not included in Eichrecht certification)
Cabinet	EVC15

3 - TECHNICAL SPECIFICATION

This product is compliant to IEC61851-1 (Ed3.0) and IEC61851-21-2 standard for Mode 3 use.

Model	EVC15-AC44 Series
IEC Protection class	Class - I
Socket Model	2 x Socket TYPE 2 (IEC/EN 62196-1 - IEC/EN 62196-2) 2 x Shutter Socket IEC/EN 62196-1 - IEC/EN 62196-2 Type-2 (Optional)
Cable Model	2 x Cable with TYPE 2 (IEC 62196) Female Plug
Voltage and Current Rated	230/400VAC 50/60Hz- 3-phase 32A for 2 outlets
AC Maximum Charge Output	44kW
Serial Interface	Modbus / M-Bus over RS485
Power Level Control	WebConfig UI
Display	7" TFT color display
MID meter	Compliance with Eichrecht
Built-in Residual Current Sensing module	6mA DC
Built - in RCCB	4P-40A - 30mA RCCB Type- A
Built - in MCB	4P-40A MCB Type-C
Required AC Mains Cable	Min 5x16 mm^2 (< 50 m)

CONNECTIVITY

Ethernet	10/100 Mbps Ethernet
Wi-Fi	Wi-Fi 802.11 a/b/g/n/ac
Cellular (Optional)	LTE: B1 (2100 MHz), B3 (1800 MHz), B7 (2600 MHz), B8 (900 MHz), B20 (800 MHz) WCDMA: B1 (2100 MHz), B8 (900 MHz) GSM: B3 (1800 MHz), B8 (900 MHz)
Bluetooth	BT 5.1 ; BT 4.2 low energy (Optional)

WIRELESS LAN TRANSMITTER SPECIFICATIONS

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 MOBİLİTE SANAYİ VE TİCARET A.Ş. EGE SERBEST BÖLGE ŞUBESİ, 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.

AUTHORIZATION

RFID Reader Module	ISO/IEC 14443A/B and ISO/IEC15693

OTHER FEATURES (Connected Models)

Remote Diagnostics	Remote Diagnostics over OCPP
OCPP	OCPP 1.6 JSON
Load Management	Ethernet / Wi-Fi / RS485 OCPP Smart Charging MultiCP Local Load Balancing
Software Update	Remote software update over OCPP WebconfigUI update Remote software update with server

MECHANICAL SPECIFICATIONS

Material	Metal Panel	
Protection Degree	Ingress Protection Impact Protection	IP54 IK10
Dimensions	1363 mm (Height) x 380 mm (Width) x 210 mm (Depth)	
Dimensions (with packing)	1515 mm (Height) x 850 mm (Width) x 630 mm (Depth)	
AC Mains Cable Dimension & Cable Gland Diameters	For 16mm^2 - 35mm^2 AC Mains, suitable cable gland diameter interval is 22mm^2 - 35mm^2	
Weight	41 kg	
Weight (with packing)	62 kg	

ENVIRONMENTAL SPECIFICATIONS

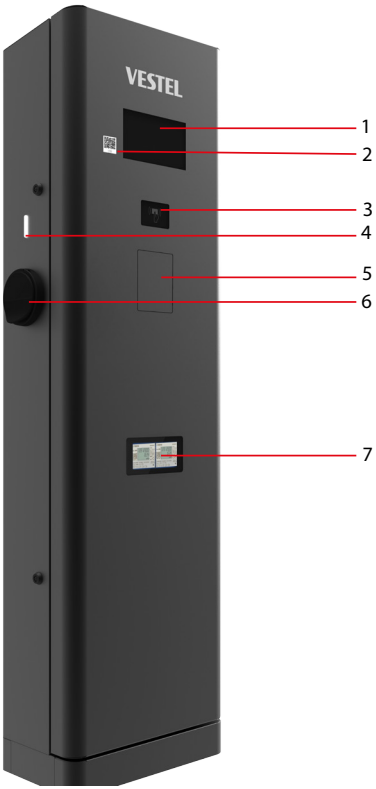
Operation Condition	Temperature	-25 ˚C to + 50 ˚C
	Humidity	5 % - 95 % (Relative humidity, non-condensing)
	Altitude	0 - 3.000m

TECHNICAL CHARACTERISTICS OF THE MEASURING CAPSULE

Model	WM3M4C
Manufacturer	ISKRA d.o.o.
Mark of type-examination certificate	DE MTP 20 B 011 M
Iref [A]	5
Imin [A]	0,25
Imax [A]	60
Meter constant [imp./kwh]	1000
Un [V]	3x 230/400V
Frequency [Hz]	50Hz
Temperature range	-25...+70˚C
Accuracy class	B
Main Firmware Version	V2.05
Checksum of the Main Firmware	EEC6 6478 (hex)
Checksum of the Firmware of the Measurement Module	B5E6 (hex)

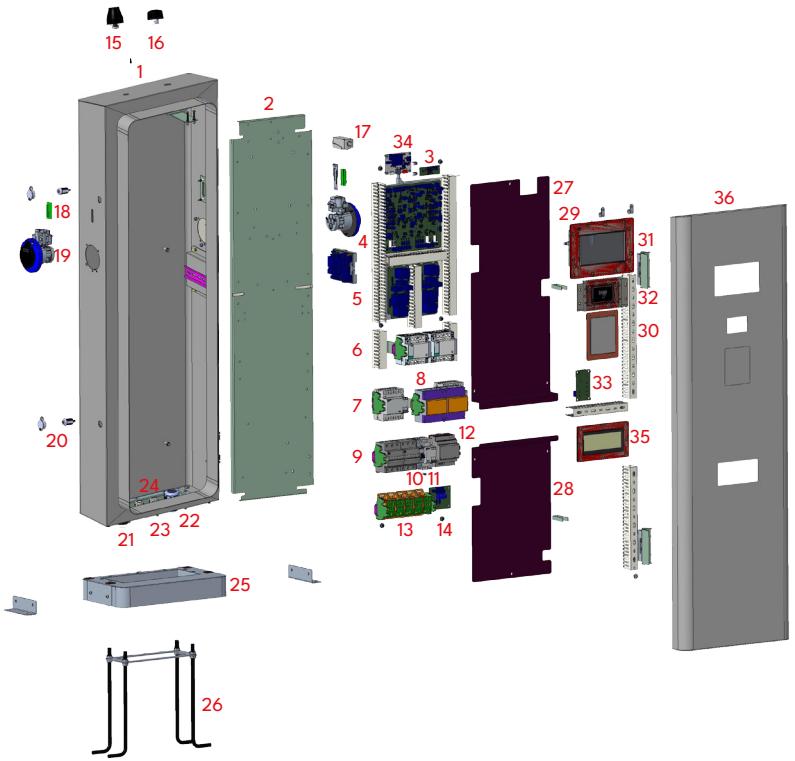
4 - GENERAL INFORMATION

4.1 - INTRODUCTION OF THE PRODUCT COMPONENTS



1- Informative Display
2- QR code label for the User Manual
3- RFID Card Reader
4- Status Indicator LED
5- Payment Terminal Area
6- AC Type-2 Socket Outlet
7- Eichrecht-compliant MID meter display

4.2 - ELECTRIC VEHICLE CHARGING STATION EXPLODED PICTURE



NO	PART DESCRIPTION	NUMBER
1	Back Cover	1
2	Mounting Plate	1
3	Wifi Card	1
4	AC Control Card	1
5	MCT & DC6 Card	2
6	Contactor	2
7	RCCB (3P)	2
8	MID	2
9	MCB (3P)	2
10	PSU MCB (1P)	1
11	PSU RCCB (2P)	1
12	PSU	1
13	AC Bar / Connectors	5
14	SPD Card	1
15	LTE Antenna	1
16	Wi-Fi Antenna	1
17	Door Switch	1
18	Notification LED	2
19	Type-2 AC Socket	2
20	Door Lock	2

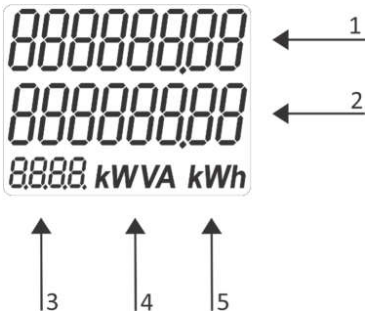
NO	TEILEBESCHREIBUNG
21	M40 Cable Gland
22	M32 Cable Gland
23	M20 Cable Gland
24	Cable Gland Plate
25	Base Cover
26	Anchor
27	Top Acrylic
28	Bottom Acrylic
29	HMI
30	Retrofit
31	Screen Glass
32	RFID Glass
33	Ethernet Card
34	LTE Card
35	MID Glass
36	Front Cover

4.3 - LCD-DISPLAY

4.3.1 - Device Information Display

The energy meters have a LCD with the following layout.

1 Total kWh
2 User settable line
3 4 digit label
4 kWVA display
5 kWh display



4.3.2 - Start Screens

LCD segment test

FW identification window and MID relevant counters:

1 MID unlock counter
2 FW upgrade counter
3 CRC of main FW
4 CRC of measuring modules FW
5 FW version

4.3.3 - LCD Display Information

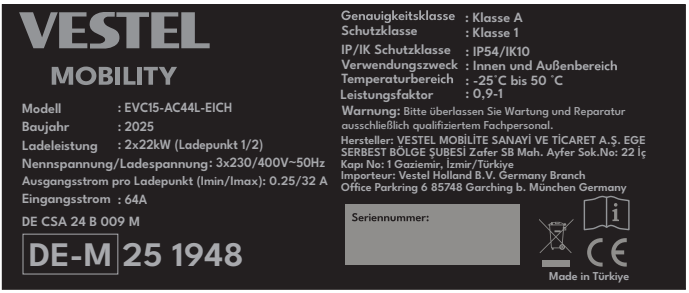
In end, standby, and charging modes, the meter display automatically cycles through the predefined parameters at 6-second intervals; example display screens are shown below, and the parameters actually displayed on the device are described accordingly in this document.

No.	End and Standby mode rolling each 6 seconds	Charging mode rolling each 6 seconds
1		
2		
3		
4		
5		

4.4 - TYPE PLATE

The type plate is located in the right-middle corner EV charger. It includes the CE marking, serial number and electrical properties of the charger. Read the instructions before first use.

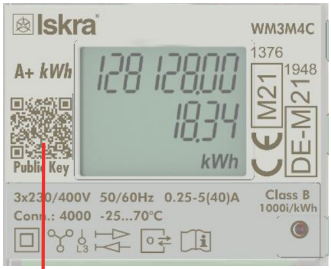
Example of a Type Plate for EVC15:



EVC15 Type Plate on the back of the product:

4.5 - PUBLIC KEY

A QR code is printed on the front of the meter, which contains the public key in full format. The signature can be verified by means of a public key.

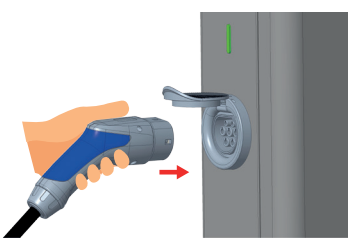


Public Key Information

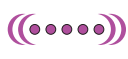
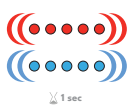
Public key (for the measurement capsule, imaged on the type plate of the meter of the charging station in the form of a QR code).

4.6 - PLUGGING CHARGING CABLE

Open the front cover of the available socket outlet and plug the charging cable to the socket outlet.



4.7 - BEHAVIOUR OF THE STATUS INFORMATION LED

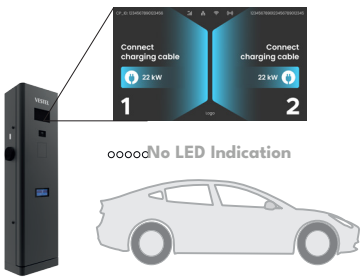
Status of the LED		Status of the Charging Station
	Blinks Blue and Green	Charging station is starting up / booting.
	No LED Indication	Charging device is ready to charge. Finished charging with RFID card
	Blinks blue 2,4 seconds OFF 1,2 seconds ON	Electric Vehicle is connected. Charging Station is waiting for RFID card authorisation.
	Green Glowing	Charging is authenticated.
	Blue Glowing	Charging in progress
	Constant Blue	Charging suspended or finished
	Constant Red	Fault condition
	Blinks red	Ventilation required mode
	Blinks purple	Charging with current limited to 16A due to over temperature
	Blinks purple 2,4 seconds OFF 1,2 seconds ON	TIC Communication Error
	Constant Purple	Charging not possible due to over temperature
		Park Automation System disabled charging
		Charging paused due to power optimizer low current limit or EVC low current limit
	Blinks Red 10 seconds ON 2 seconds OFF	Over Voltage, Under Voltage, Protective Earth Or Phase Reversal Fault, Installation Error
	Blinks red and blue	Charging station is reserved. Charging station is waiting for Eco Time interval and Waiting in Peak Hours Mode.
	Constant Red	Firmware update
	Green Glowing	Authorised RFID Card is tapped while charging cable is connected

Status of the LED		Status of the Charging Station
	Glows green for 30 secs	Authorised RFID Card is tapped while charging cable is not connected
	Blinks red for 3 times	Start/stop charging attemption with unauthorised RFID card
	Constant Yellow	Altered Firmware
	Blinking Yellow	Tamper switch is activated

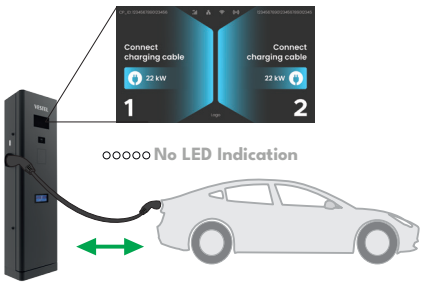
5 - CHARGING SCENARIOS

5.1 - SINGLE VEHICLE CONNECTION

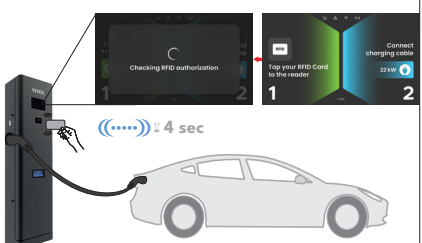
1 - Ensure that your vehicle and the station is ready for charging.



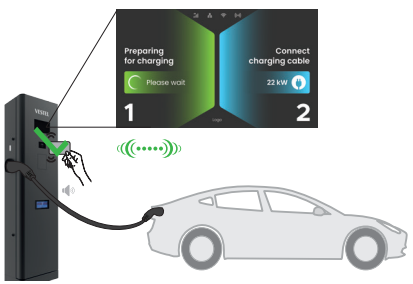
2 - Insert the charging plug to the vehicle inlet and charging station socket outlet.



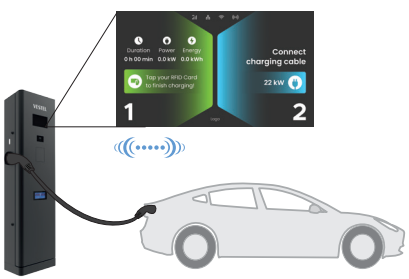
3.A - Tap the RFID card to the RFID reader. You may start charging with a card which is provided by your charging operator.



3.B - You may start charging with a card that has been authorized before. If the RFID Card is authorized by OCPP Central System, charging will start.



4 - Charging starts and status indicator LED glows in blue.

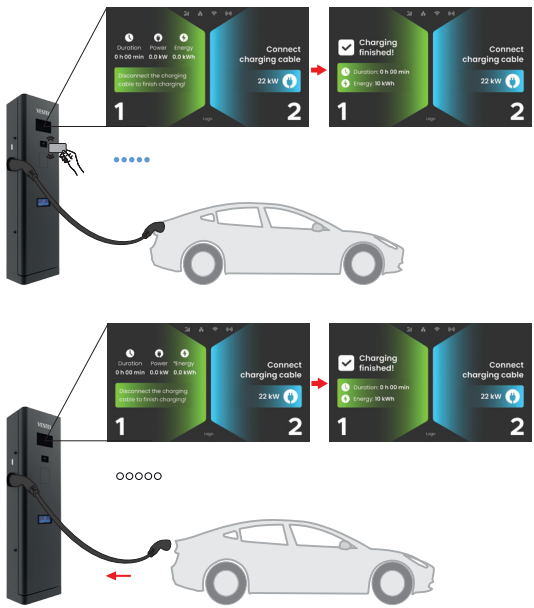


NOTE : Charging operation is rejected by the charging station when you want to start charging with an unauthorized card.

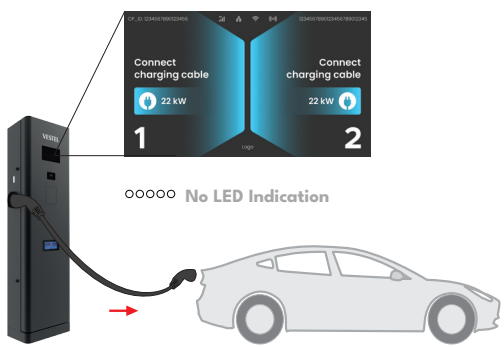
5.2 - STOP CHARGING

You may follow the alternative methods specified below to stop charging. DO NOT ATTEMPT TO UNPLUG THE CHARGING CABLE FROM THE STATION BEFORE STOPPING CHARGING. OTHERWISE LOCKING MECHANISM MAY BE BROKEN.

1 - You can terminate charging by tapping the RFID card that you have started charging before or if your electric vehicle supports stopping charging session from car, you can stop charging session firstly and unplugged your cable from car.



2 - Unplug the charging cable from the station.



5.3 - SECOND VEHICLE CONNECTION with INDIVIDUAL RFID CARDS

This part explains the usage of second charging outlet of the station in the same time while first outlet has ongoing charging session which is started by tapping different RFID card.

1 - Ensure that your vehicle and the station is ready for charging.

2 - Insert the charging plug to the vehicle inlet and charging station socket outlet.

3- Tap the RFID card to the RFID reader. You may start charging with a card which is provided by your charging operator.

4- You may start charging with a card that has been authorized before. If the RFID Card is authorized by OCPP Central System, charging will start.

5 - Charging starts and status indicator LED glows in blue.

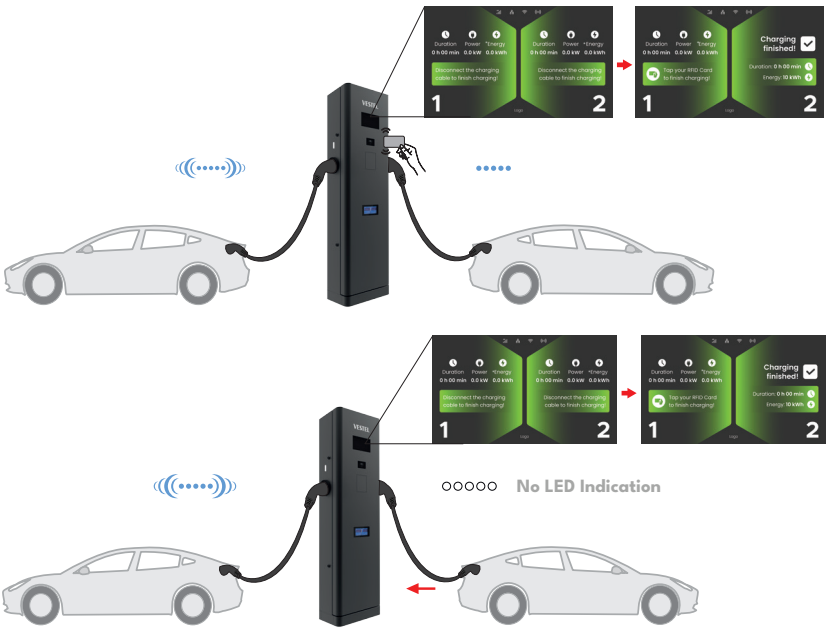
NOTE : Charging operation is rejected by the charging station when you want to start charging with an unauthorized card.

NOTE : If both outputs of the charging station are plugged and there is no authorization for any plug, if you want to start charging by tapping any authorised RFID card , the station will display a warning on the screen and direct you to remove one of the charging cables and will not start charging. For this reason, in order to start charging from separate sockets, first connect any charging cable and authorise that outlet before connecting the other charging cable.

5.4 - STOP CHARGING

You may follow the alternative methods specified below to stop charging. DO NOT ATTEMPT TO UNPLUG THE CHARGING CABLE FROM THE STATION BEFORE STOPPING CHARGING. OTHERWISE LOCKING MECHANISM MAY BE BROKEN.

1 - Whichever RFID card is used in the selected socket when the charging process is started, the charging process in that socket can be stopped with same RFID card or if your electric vehicle supports stopping charging session from car, you can stop charging session firstly and unplugged your cable from car.



2 - Unplug the charging cable from the station.

6 - VERIFICATION OF THE VALIDITY OF MEASUREMENT DATA USING TRANSPARENCY SOFTWARE

This section is describing charging, transfer of legally relevant data and billing of charging process in accordance with the German Measures and Verification Ordinance (MessEV).

In this charging station, the progressing kWh display information is shown on the display.

What is transparency software?

Transparency software allows you to verify digital signatures. Depending on its technical design, a charging station creates digitally signed meter readings in connection with the charging procedure you are carrying out at the charging station. These digital signatures enable you to check the readings with a time delay so that you can ensure noone has manipulated the readings at any point during their transfer to your invoice.

In order to use the transparency software you must first download and then open it on your desktop PC system.

You can download transparency software from the link below. Installation is explained on this site.

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

How does the transparency software work?

Transparenzsoftware 1.2.0

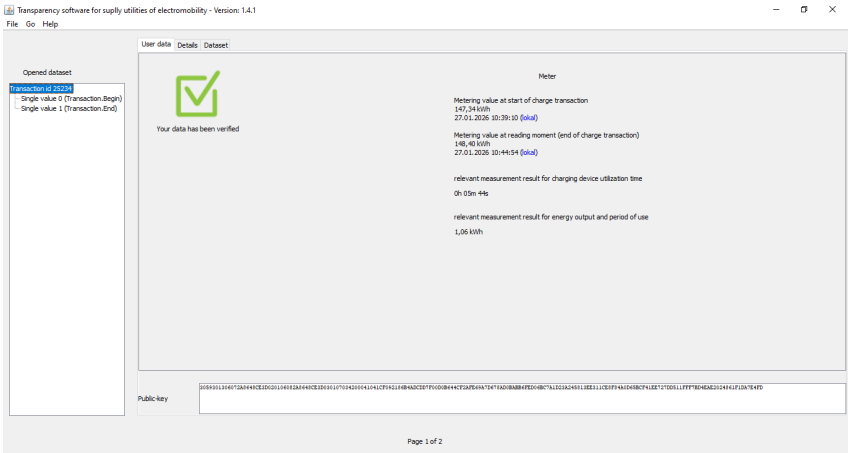
With the use of this software, it's possible to verify a digital signature. Depending on the technical setup, a charging station will produce a digitally signed meter reading that is linked to the charging station where an EV is being charged. With this digital signature, you can check the measured values with a delay. In this way, as a consumer, you always know for sure that the charged kWhs are correct and that the measured values can no longer be adjusted when the charged kWhs are invoiced.

LOADING DIGITAL SIGNATURE DATA

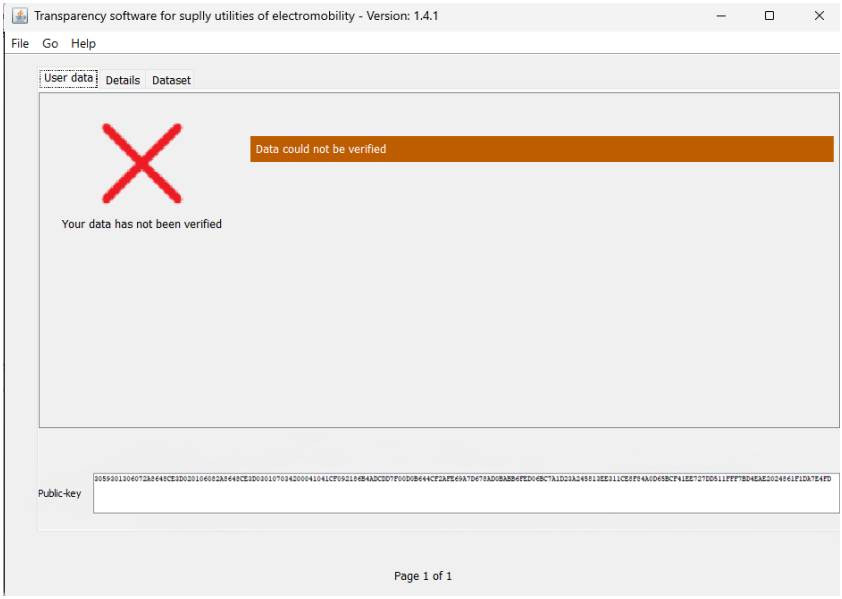
Select the meter readings available to you using the 'File' / 'Open' function and enter the charging station's public key.

CHECKING THE RESULT

Check the output as to whether the results of digital signature verification match the information on your invoice or charging receipt.



If you enter the wrong public key, it will give an error message as below.



Remote transmission of metering data to a OCPP backend

Charging station connecting to an OCPP backend, the corresponding signed measurement and log data record is provided to the OCPP backend automatically at the end of a charging session.

Forwarding data records to customers

Forwarding data records to customers is the job of the charge point operator and is not within the scope of influence of the charging station manufacturer. After the charging session, signed metering data records are transmitted to an OCPP central system and this data is available to an end user via web interface, e-mail, smart phone application or similar.) The data records are preferably in .xml format. If you need to verify the charging session data by using transparency software please request signed measurement data from your charge point operator or e-mobility provider.

Verification of measurement data using the transparency and display software

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

The charging station has a public key. The public key is openly available and indicated on the type plate of measurement unit of the charging station in the form of a QR code. The charging station creates a measurement data record in the measurement capsule. The charge point operator then uses the signed measurement data record to create the bill. Both the signed measurement data and the public key, in a format that is compatible with the transparency and display software, must be provided on the bill or in a customer portal.

After receiving the bill, the consumer can input the digitally signed measured values along with the public key into the transparency and display software. The signature verification enables the consumer to check the validty of the measured values. To do so, the consumer compares the values displayed in the transparency and display software with the contents of the bill. If the measurement record is validated by transparency software , this confirms that the data record was not changed and valid for billing.

The transparency and display software checks the following data:

Public key, as identifier of the charging station. The public key can also be read on the type plate of measurement unit of the charging station.

Correct measured energy value

Correct user/transaction ID

Checking the signed measurement data record

To check the measurement data record, proceed as follows:

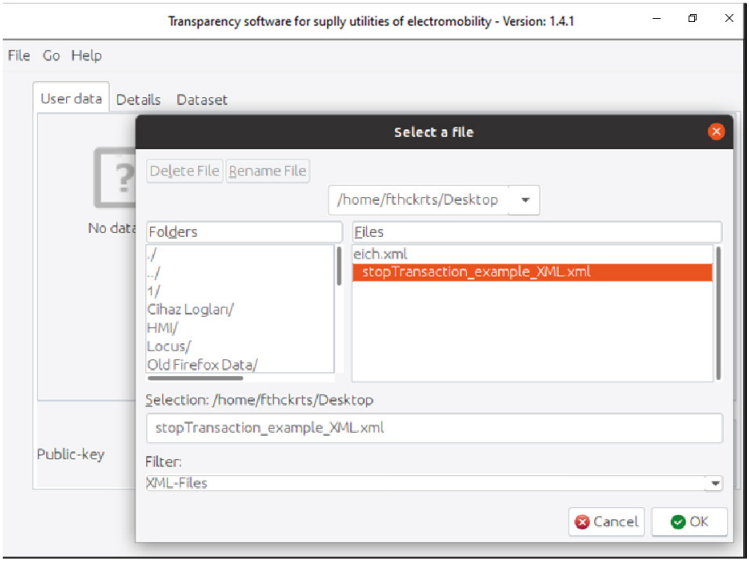
1) Download and install a Java Runtime Environment (available for all operating systems, usually already present, e.g. Oracle).

2) Download the transparency and display software from

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

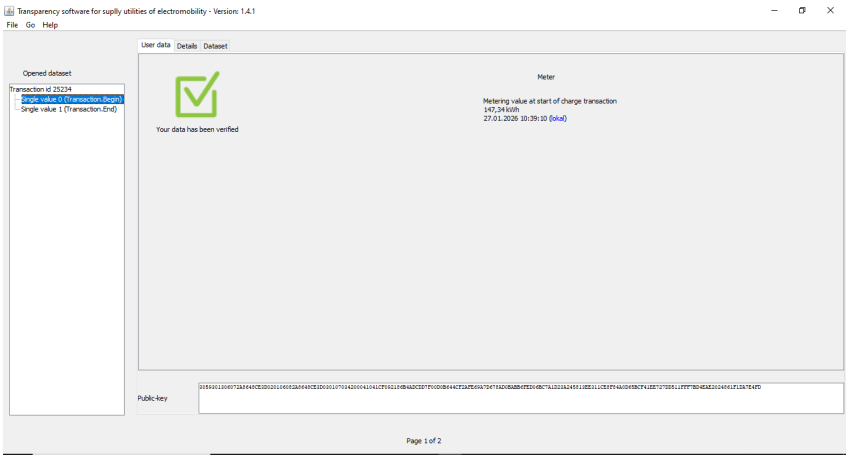
3) Input the following data into the transparency and display software:

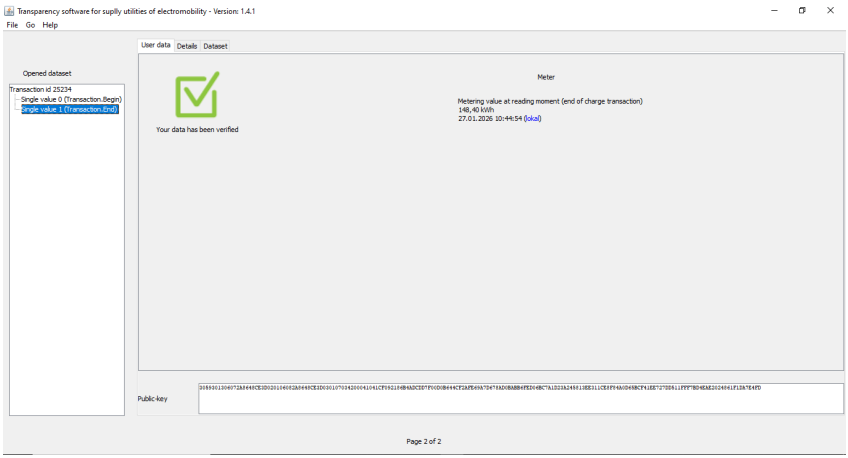
– Signed measurement data record
– Selection of the “OCMF” format
– Public key of the corresponding charging station



4) After entering the necessary data, the check can be started.

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





7 - LEGAL INFORMATION

7.1 - MEASUREMENT ACCURACY NOTES ACCORDING TO CSA TYPE APPROVAL CERTIFICATE

I Requirements for the operator of the charging station, which must be fulfilled as necessary prerequisites for the proper operation of the charging station.

The operator of the charging station is, within the meaning of § 31 of the Measurement and Calibration Act (Mess- und Eichgesetz), the user of the measuring device.

1. The charging station is considered legally compliant and properly used under calibration law (Eichrecht) only if the meters installed in it are not exposed to environmental conditions other than those for which their type approval certificate (Baumusterprüfbescheinigung) was issued.

2. The charging station is considered legally compliant and properly used under calibration law only if only the authentication methods listed under Punkt 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 in the charging station with the Federal Network Agency (Bundesnetzagentur) in their registration form when registering the charging points! Without this registration, legally compliant operation of the station 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 station and for the charging station itself are not exceeded.

5. The user of this product must ensure that charging stations are promptly taken out of service if, due to fault or error messages in the display of the calibration-relevant human-machine interface, legally compliant operation is no longer possible. The catalog of fault and error messages in this operating manual must be observed.

6. The user must store the signed data packets read from the charging station – continuously and completely according to pagination – on hardware dedicated to this purpose or, by agreement, in the possession of the EMSP or backend system ("dedicated storage") and make them available to authorized third parties (obligation to operate the storage). "Permanently" means that the data must be retained not only until the completion of the business transaction, but at least until the expiration of any possible statutory limitation periods for the business transaction. Missing data may not be replaced by substitute values for billing purposes.

7. The user of this product must provide measurement value users, who receive measurement data from this product and use it in commercial transactions, with an electronic copy of a CSA-approved operating manual. In doing so, the user must specifically point to Nr. II "Requirements for the Users of Measurement Data from the Charging Station."

8. To the extent required by authorized authorities, the measuring device user must provide the full content of the dedicated local storage or the storage at the EMSP/backend system with all data packets of the billing period.

II – Requirements for the Users of Measurement Data from the Charging Station (EMSP)

The user of the measurement data must comply with § 33 of MessEG:

§ 33 MessEG (Quote)

§ 33 Requirements for Using Measurement Data

(1) Values for measurement quantities may only be indicated or used in commercial or official transactions, or in measurements in the public interest, if a measuring device was properly used to determine them and the values can be traced to the respective measurement result, unless otherwise specified in the legal ordinance according to § 41 Nummer 2. Other federal regulations serving comparable protective purposes remain applicable.

(2) Anyone using measurement values must, within the scope of their possibilities, ensure that the measuring device meets the legal requirements and must obtain confirmation from the person using the measuring device that they have fulfilled their obligations.

(3) Anyone using measurement values must:

1. Ensure that invoices, insofar as they are based on measurement values, can be easily verified by the person for whom the invoices are intended (corresponding to Nummer 1); and

2. Provide, if necessary, suitable tools for the purposes mentioned in Nummer 1.

From this regulation, the following specific obligations arise for the user of measurement values to ensure legally compliant use under calibration law (Eichrecht):

1. The contract between the EMSP and the customer must clearly stipulate that only the delivery of electrical energy, and not the duration of use of the charging station, is the subject of the contract.

2. The timestamps on the measurement values come from a clock in the charging station that is not certified under the Measurement and Calibration Law and must therefore not be used for tariffing the measurement values.

3. The EMSP must ensure that the customer automatically receives a record of the measurement after completion and at the latest at the time of invoicing, including information necessary to determine the business transaction, unless the customer explicitly waives this. Such information may include:

a. Name of the EMSP

b. Location of the charging station

c. Start and end time of the charging session

d. Energy delivered (kWh)

e. Amount to be billed

4. If the customer requests proof that the measurement results were correctly transferred from the charging station to the invoice, the EMSP is obligated according to MessEG § 33 Abs. (3) to provide it. If the customer requests reliable permanent proof according to Annex 2 § 10.2 MessEV, the EMSP must provide it and inform the customer of these obligations. This can be done, for example, in the case of continuous charging contracts through the text of the contract.

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

a. For charging with a continuous obligation relationship via the written contract.

5. The EMSP must automatically make the billing-relevant data packets available to the customer after the completion of the measurement and at the latest at the time of invoicing, including signatures, as a data file in a manner that allows verification of their authenticity using transparency and display software. The provision of the data packets can occur via legally unverified channels in the following ways and depending on the authentication method:

a. For charging with a continuous obligation relationship via email or access to a backend system.

Additionally, the EMSP must make the transparency and display software associated with the charging station available to the customer for verifying the authenticity of the data packets. This can be done by referencing the source in the user manual for the customer or through the aforementioned channels.

6. The EMSP must be able to verifiably demonstrate which identification method was used to initiate a specific charging session. That is, for each business transaction and billed measurement value, the EMSP must prove that the measurement value is correctly assigned to the customer's identification data. The EMSP must inform its customers of this obligation.

7. The EMSP may only use values for billing purposes for which data packets exist in the dedicated storage in the charging station and/or in the EMSP/backend system. Substitute values may not be created for billing purposes.

8. The EMSP must ensure, via appropriate agreements with the charging station operator, that the data packets used for billing are stored long enough to allow the complete processing of the associated business transactions.

9. Upon justified request for calibration, verification, and usage monitoring measures, the EMSP must enable authentication on the relevant instances of the product belonging to this operating manual using suitable identification means.

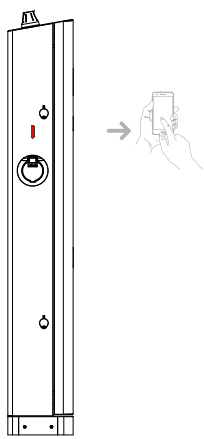
10. All of the above obligations apply to the EMSP as a measurement value user within the meaning of § 33 MessEG, even if the measurement values are obtained from the charging stations via a roaming service provider.

8 - ERROR AND FAULT CONDITIONS

In case of fault, “Out of order” warning is shown on display with error codes.

8.1 - GENERAL ERROR CONDITION

If the status information LED is constant red, turn off the charging station from your main box and turn on again. if the LED is still constant red then call an authorized service.



8.2 - OTHER ERROR CONDITIONS

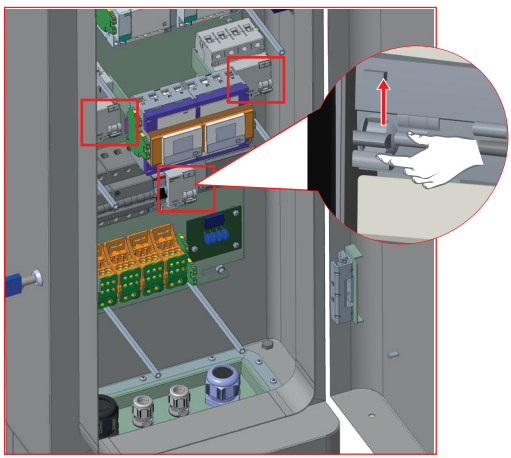
Status Indicator	Problem	Possible Causes	Recommended Solutions
	The status information LED blinks in red. 10 seconds ON 2 seconds OFF	AC supply voltage may not be in the range in the operation manual, grounding connection may not be performed and/or phase/neutral connections may be reversed or the charging station may have a fault.	Please ensure that the voltage is in the specified range and that the grounding connection have been performed. If the button is still solid red, please contact authorized service.
	Even if the status information LED blinks in blue every four seconds, it is not possible to start charging the electric vehicle or to lock the plug in the charging station	The charging plug may not be connected properly to the charging device or the electric vehicle.	Ensure that the charging plug is connected properly on both sides. Please check if your electric vehicle is in charging mode.
	The status information LED blinks in red	You shall see this error notification if your vehicle is equipped with a battery type that requires ventilation.	This charging station is not suitable to charge such vehicles.

8.3 - TRIPPING RELAY ON PRODUCTS WITH RCD and MCB

⚠ CAUTION

8.3.1 - TRIPPING THE RESIDUAL CURRENT DEVICE

- To access the RCCB, the front cover and the isolator plate must be opened. **For details, please refer to Installation Guideline section 6.2.**
- Ensure that there is no failure on your vehicle or on the charging plug that may cause a residual current before resetting the tripped residual current device.
- After ensuring that there is no problem on your vehicle or on the charging plug, unplug the charging cable from the charging station. Then reactivate your charging station by resetting the switch as shown in the third part of the figure as shown below.
- If the problem still occurs, contact an authorized service. If the problem is solved, there may be some problem with your vehicle or charging cable. Please contact with your vehicle service.



8.3.2 - DC 6mA LEAKAGE CURRENT SENSOR BEHAVIOR

The charging station is equipped with a DC leakage current sensor that reacts a DC leakage current higher than 6mA.

If the charging station goes to error state due to DC leakage current, charging cable must be unplugged from vehicle and then from the charging station to reset this error.

8.3.3 - TRIPPING THE MCB

As explained in 6.3.1 and after making sure that there is no error, the MCB or fuse tripped in the same way.

9 - 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.

Failure to follow these warnings may result in death and serious injuries. Also, it may cause damage to your device.

VESTEL

MOBILITY

CE

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