VESTEL
MOBILITY

ELECTRIC VEHICLE CHARGER

EVC06-DCHC60 Series

User Manual

CONTENTS

1- SAFETY INFORMATION

CAUTION

THE RISK OF ELECTRIC SHOCK

CAUTION: THE ELECTRIC VEHICLE CHARGER CAN ONLY BE INSTALLED BY A LICENSED OR EXPERIENCED ELECTRICIAN BY THE ELECTRICAL REGULATIONS AND STANDARDS OF ANY RELATED REGION OR COUNTRY.

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 - Read these instructions fully before installation or operation.

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 proper mains voltage.
- Do not continue to use the unit if you have any doubts as to whether it is working normally. If the device has been damaged in any way, switch off the main supply circuit breakers (MCCB and RCCB) in the upstream distribution board. Consult your local dealer.
- During charging, the ambient temperature range (without direct sunlight) should be between -35 ˚C and +50 ˚C and the relative humidity should be between 5% and 95%. Use the charging station only within the specified operating parameters.
- The device location should be consciously selected in order to prevent the charging station from overheating. High temperature caused by direct sunlight or heating sources during use may cause the charging current to decrease or the charging process to be temporarily interrupted.

- The charging station is made for indoors and outdoors. It can also be used in public open spaces.
- To reduce the risk of fire, electric shock, or product damage, do not expose the unit to heavy rain, snow, lightning storms or other harsh weather conditions. Furthermore, liquids should not be spilled or splashed on the charging station.
- Do not touch the end terminals of the charging station, the electric vehicle connector and other dangerous current parts with sharp metal objects.
- Avoid exposing the unit to heat sources and place it away from flammable, explosive, hard or caustic materials, chemicals or steam.
- Explosion Risk. This equipment contains internal spark or spark-generating parts and must not be exposed to flammable vapours. It should not be placed in lowered or below ground level locations.
- This device does not support the ventilation request requested by the vehicle.
- Make sure that the specified Current Switch and RCD are connected to the building mains to prevent the risk of explosion and electric shock.
- The base part of the charging station should be at (or above) ground level.
- Adapters or converter adapters cannot be used. Cable extension sets cannot be used.
- Mount this charging station on the wall.
- Use this product at an altitude of not more than 2000 meters above sea level.
- Do not place objects containing liquids, such as glasses and bottles, on the product.
- Against the risk of choking, keep the plastic packaging materials out of the reach of babies, small children and pets.
- Do not wash the device with water.
- Do not use abrasive fabrics, wet cloths, alcohol or detergents. Microfiber fabric is recommended.
- Keep the door lock key, which enables the product panel to be opened and prevents access to electrical parts, out of the reach of small children.
- It should be kept in its original box to prevent damage to device components during transport.
- Defects and damages that occur during transportation after the device shipment to the customer are not covered by the warranty.
- The allowed current value of the service socket is a maximum of 10A.
- Please adhere to the rope warnings outlined in the “Basic Alignment and Layout” section, especially when transporting the product.

WARNING : Persons (including children) who are physically, perceptually or mentally incompetent or inexperienced should not use electrical devices without the supervision of a person responsible for their safety.

CAUTION: This vehicle charger is designed only for charging the electric vehicles that do not require ventilation during charging.

1.2 - FIRE FIGHTING INSTRUCTIONS FOR ELECTRIC VEHICLE CHARGING STATION

- Personal Safety: If you observe a fire or notice any danger signs, prioritize your safety above all else. Do not take unnecessary risks.
- Notify Emergency Services Immediately: Contact your local emergency services. Dial the emergency number 998 or 112.
- Stopping the Charging Process: If it is safe, disconnect the charging cable from the vehicle and the charging station.
- Use of Fire Extinguishing Agents: If a fire extinguisher or other firefighting equipment is nearby and you are trained to use it, attempt to extinguish the fire. However, never risk your own safety.
- Avoid Direct Contact with Fire: Do not try to extinguish a fire unless you have the appropriate equipment, training, or knowledge, or if the fire is exceptionally large or dangerous.
- Move Away from the Station: If the fire cannot be controlled or is intensifying, evacuate from the charging station while maintaining a safe distance.
- Avoid Inhaling Smoke: Try to avoid breathing in smoke. If possible, cover your nose and mouth with a damp cloth or clothing.
- Warn Others in the Area: Alert others nearby about the fire hazard and urge them to evacuate the area.
- Wait for Emergency Services: After safely evacuating the area, wait for emergency services to arrive in a secure location.
- Do Not Return to Station Facilities: Do not re-enter the charging station building until emergency services have concluded their operations.
- Reporting the Incident: Contact customer support to report the incident.

Remember, safety is always the top priority. In the event of a fire, always seek guidance from local emergency services and adhere to their instructions.

1.3 - GROUND CONNECTION WARNINGS

- The charging station should be connected to a central grounding system. The grounding conductor entering into the charging station should be connected to the equipment grounding lug inside the charging station. This should be powered by the circuit conductors and connected to the equipment grounding rod or to the guide member at the charging station. Connections to the charging station are in the charge of the installers and purchasers.
- Connect it only to correctly grounded plugs to reduce the risk of electric shock.
- **WARNING :** Make sure that the charging station is permanently and properly grounded during installation and use.

1.4 - POWER CABLES, PLUGS, AND CHARGING CABLE WARNINGS

- Note that the plugs and sockets in the charging station are compatible.
- A damaged charging cable may cause a fire or electrical shock conditions. Do not use this product if the Flexible Charging cable or vehicle cable is worn, has frayed insulation, or shows any different signs of damage.
- Make sure the charging cable is well placed, thus you will not step on and trip over the cable or the cable will not damage or subject to stress.

- Do not forcibly pull on the charging cable or damage the cable with sharp objects.
- Never touch the electric cable/plug or vehicle cable with wet hands as this may cause a short circuit or electric shock.
- To avoid the risk of fire or electric shock, do not use this device with an extension cable. In case of damage to the mains cable or vehicle cable, the cables should be replaced by the manufacturer, service agency or similar qualified persons to prevent any hazards.
- Use appropriate protection while connecting the device to the main power distribution cable.

1.5 - PROTECTIONS REQUIRED BEFORE SYSTEM

- Class I/B Lightning Protection should be connected to the upstream distribution board. It is recommended that the cable length between the charger and the protection device be at least 10m. *The charger is equipped with a Class II/Type C Surge Protective Device (SPD).
- To prevent the residual current, Type A residual current relay with toroidal sensor should be used on the panel before the device. The minimum current sensitivity should be set to 300mA.
- MCCB (Thermal Magnetic Adjustable) should be connected to the upstream distribution box.

Model	CCS	CCS - 2	Power output	Input Voltage	Input AC current	Recommended Section Values L1-L2-L3 (mm2) (Copper Conductor Cable)	Recommended Cross Section Value for Neutral (Copper Conductor Cable)	Recommended Cross Section Value for PE (mm2) (Copper Conductor Cable)
EVC06DC - HC60C	60	-	60kW	400V (nom.)	95A	35	16	35
				360V (-%10)	105A			
EVC06DC - HC60CC	30	30	60kW	400V (nom.)	95A	35	16	35
				360V (-%10)	105A			

Minimum cable cross-sections are provided for maximum AC input current. The final cross-sections of the installation conductors should be calculated by the installer, taking into account the distances and mounting location conditions.

2 - INTRODUCTION

Model Name	**EVC06DC-HC Series (Name Coding: EVC06DC-HC****)** First Star (*) : Related Power 60 : 60 kW DC Power Output Second Star (*) : DC output combination 1 C : CCS Output Third Star (*) : DC output combination 2 C : CCS Output Blank : No CCS output Fourth Star (*) : Blank : No DC Meter EICH : Eichrecht Meter
Cabinet	EVC06HC

3 - ELECTRICAL PROPERTIES

Model		EVC06-DCHC Series
IEC Protection class		Class - I
IEC EMC Class		IEC 61000-6-3 Class B-Domestic(Emission) IEC 61000-6-2 Industrial(Immunity)
Input Rated Voltage and Current Value	**Input Rate**	400 Vac ±10% , 50/60 Hz, 95 A
	Connection	3P+N+PE (TN,TT)
	Power Factor:	> 0.98
	Efficiency	> %95
	Residual Current Protection	230Vac RCBO 1P+N, Tip A, 30mA(system)
	Standby Power Consumption	< 50 W
Output 1 - CCS	**Max. Power**	60 kW
	Voltage Range	200 – 920 Vdc
	Maximum Current	200 A
	Interface Compatibility	IEC62196-1 / 3 IEC 61851-1 / 23 / 24 ISO 15118-1 / 2 / 3 DIN 70121
Output 2 - CCS	**Max. Power**	60 kW
	Voltage Range	200 - 920 Vdc
	Maximum Current	200 A
	Interface Compatibility	IEC62196-1 / 3 IEC 61851-1 / 23 / 24 ISO 15118-1 / 2 / 3 DIN 70121
Internal Precautions		Residual current detection/Insulation supervision/Overcurrent / Overvoltage / Undervoltage / Short circuit / Over Temperature / Overvoltage Protection
Supported Charging Modes		Mode 4 (22kW AC Optional) - Mode 3

4 - USER INTERFACE AND AUTHENTICATION

Screen	10.4” Colour TFT LCD
User Interface	High Brightness Resistive Touch Screen
RFID Reader Module	ISO/IEC14443A/B and ISO/IEC-15693
Payment module (Optional)	Contactless Credit Card kit options Please contact with the following service providers for installation. https://www.payter.com/contact https://www.nayax.com/contact/
DC MID Meter (Optional)	MID meter Approved
DC MID Meter (Optional)	Eichrecht Germany compatibility

5 - CONNECTION

LAN Connection	Ethernet
WLAN Connection	2.4GHz: 802.11b/g/n 2.4GHz/5GHz: 802.11 a/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 PROPERTIES

Materiel	Galvanized Sheet Metal Panel	
Degree of Protection	Water and Dust protection Impact Protection	IP54 IK10
Cooling	Air Cooling Fan	
Cable Length	CCS: 3.50 m CCS: 5 m	
Dimensions (Product)	1754 mm (Length), 683 mm (Width), 458 mm (Depth)	
Dimensions (packed version)	2000 mm (Length), 950 mm (Width), 590 mm (Depth)	
Weight (Product)	263 kg.	
Packed Weight	363 kg with package	

7 - ENVIRONMENTAL SPECIFICATIONS

Conditions of Use	Temperature	-35˚C to +50˚C (above +40˚C, reduction process is applied) For products with credit card option-20˚C to + 50 ˚C (above + 40 ˚C, reduction process is applied)
	Humidity	5% to 95% (relative humidity, without condensation)
	Altitude	0 - 2,000m

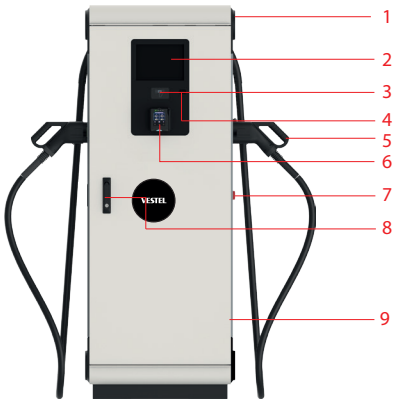
After the product is energized at low temperatures, it should wait for the heater in the charger to activate, and charging should be done after this process.

8 - BEHAVIOR OF STATUS INFORMATION LED

STATUS OF LED		MODE
	Blue and Green Flashes	Initialise EVSE.
	No LED Indicator	Rechargeable.
	Blue Illuminates	Charging.
	Blue Illuminates Steadily	Charging is suspended or finished.
	Red Illuminates Steadily	Error.
	Green Illuminates	Charging process is verified.

9 - GENERAL INFORMATION

9.1 - INTRODUCTION OF THE PRODUCT COMPONENTS



1- LED Indicator

2- Display

3- RFID Card Reader

4- ALS Sensor

5- DC CCS Output Plug

6- Payment Terminal Option

7- Emergency Stop Button(Optional)

8- Access Cover for CTB, PLC Card and HMI

9- Fan Access Cover

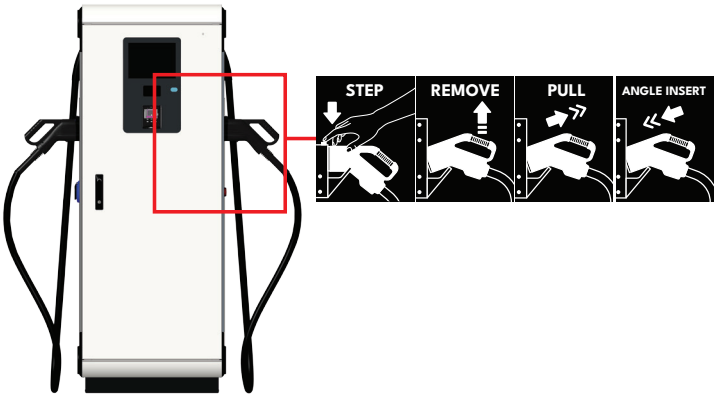
All products images are given for representative purpose only.

9.2 - PLUG IN THE CHARGER

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

9.2.1 - CCS Plug

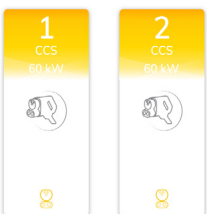
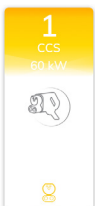
To remove the charging socket from the charger, first press the button on the charging socket, then lift the gun as shown in the figure below and pull it towards you, while inserting the gun into the socket, insert it at an angle as shown in the figure.



All products images are given for representative purpose only.

9.3 - CHARGING SCENARIOS (Including all scenarios)

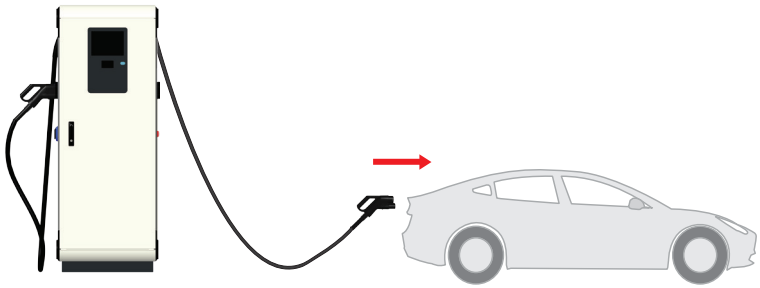
On the main screen located on the charging station screen, you can touch the plug you want to use or only connect that plug to your vehicle.

CCS + CCS	CCS
	

9.3.1 - DC CCS Plug

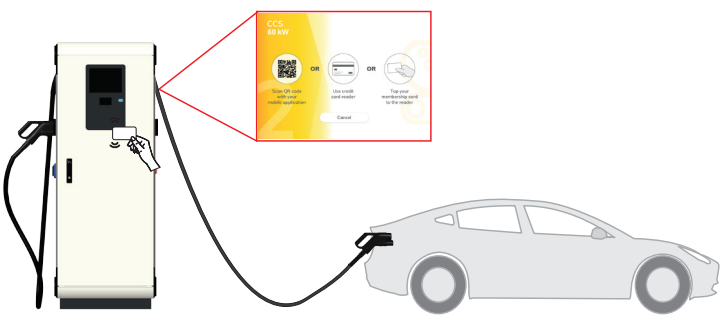
9.3.1.2 - VEHICLE CONNECTION AND CHARGING

1- Connect the charging cable to the vehicle to start charging.



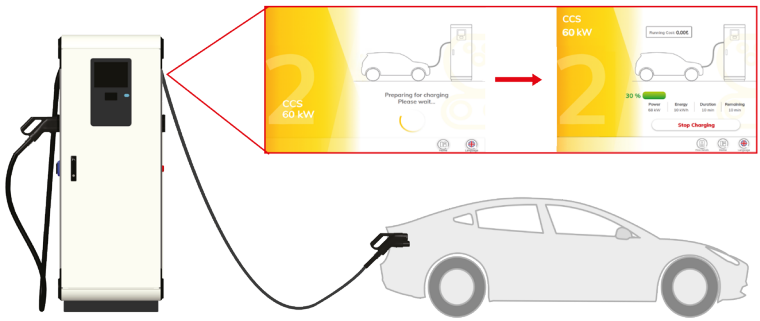
All products images are given for representative purpose only.

2- Scan your RFID card, QR Code to start charging or the use credit card reader. Credit card reader appears on the screen when there is a payment module. Optional. (AutoCharge If it is set in webconfig and vehicle registration is available in the system, charging starts without reading the RFID card)



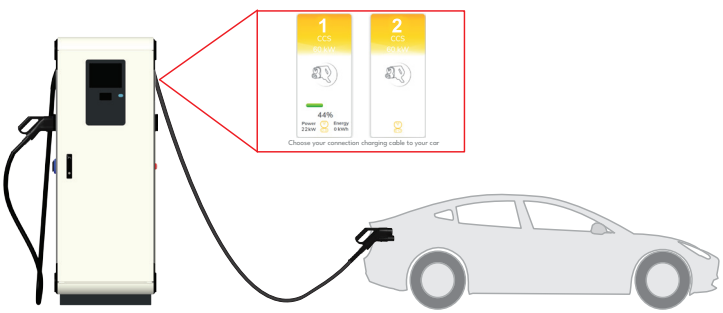
All products images are given for representative purpose only.

3- It may take a few seconds for the charging session to start. The charging status can be viewed on the charging page.



All products images are given for representative purpose only.

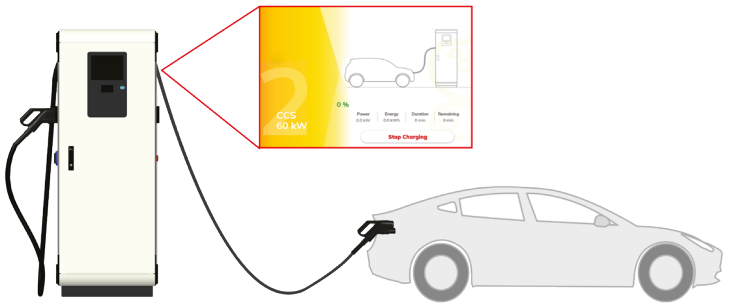
While charging, the charging status can be viewed in the main menu.(Image is Representative.)



All products images are given for representative purpose only.

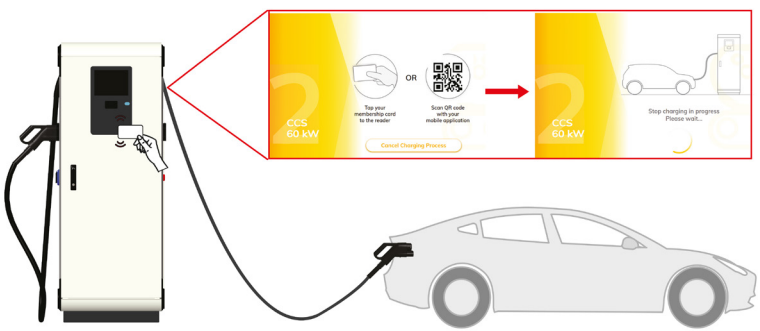
9.3.1.3 - STOP CHARGING

1- Touch the “Stop Charging” button on the screen to stop charging.



All products images are given for representative purpose only.

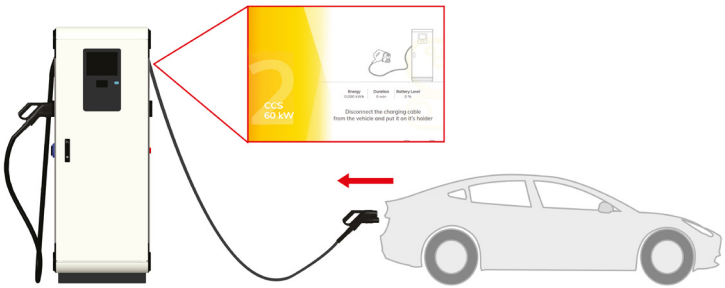
2- Scan your RFID card or the QR Code to stop charging.



All products images are given for representative purpose only.

3- Disconnect the charging cable.

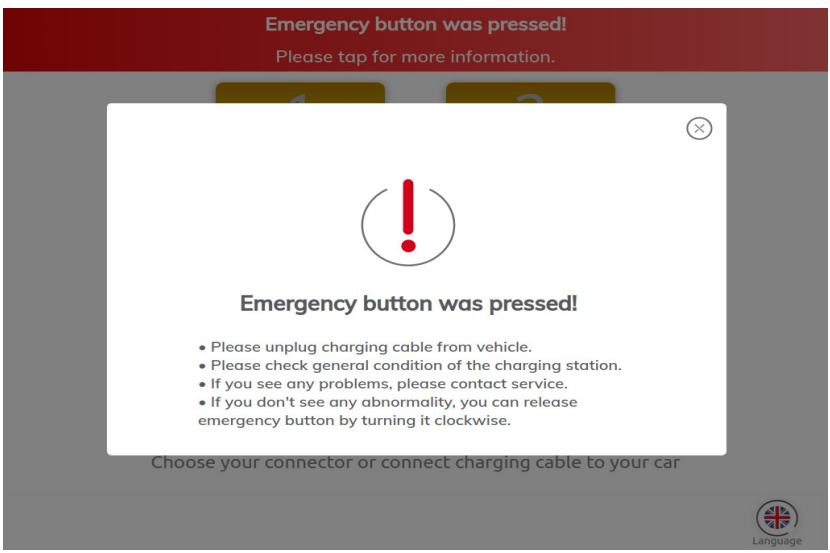
After disconnecting, you will be automatically switched to the main screen.

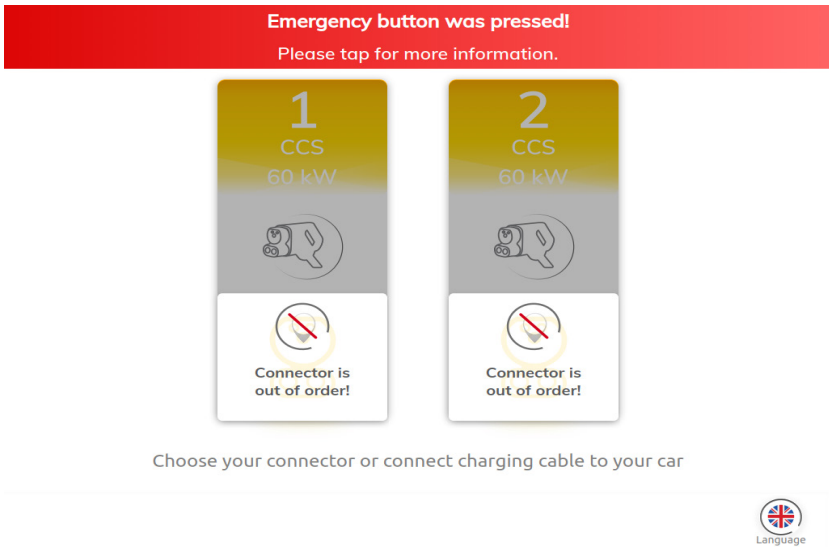


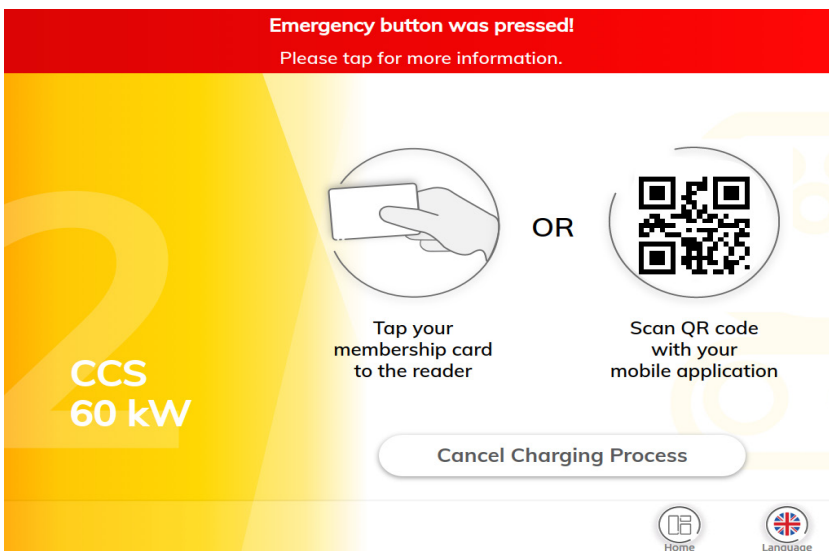
All products images are given for representative purpose only.

9.4 - EMERGENCY BUTTON (Optional)

Please follow the screen when the emergency stop is pressed.



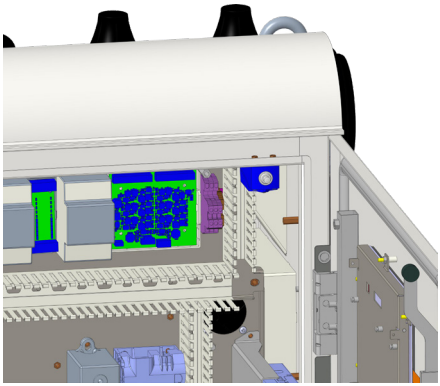




9.5 - DOOR SWITCH / TILT SENSOR

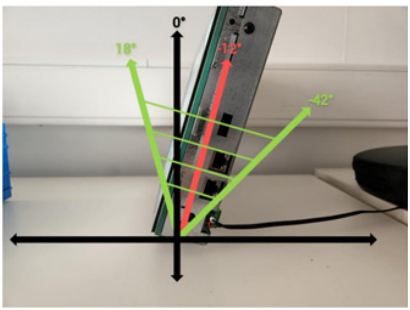
9.5.1 - Door Switch

The behavior 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 from 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.



9.5.2 - Tilt Sensor

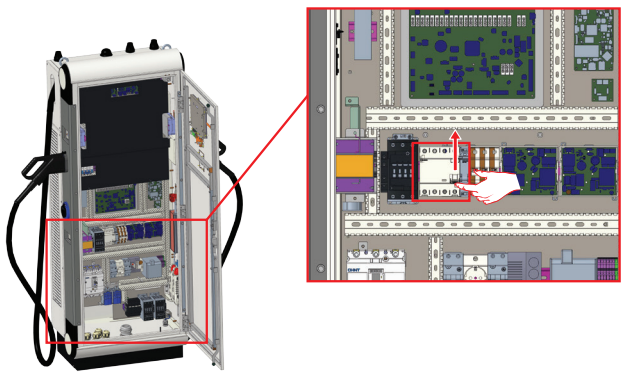
If the product reaches the determined tilt angle in forward or reverse direction, the tilt sensor takes the tilt angle information on the OCPP and disables the sockets and prints “Out Of Order” on the screen. However, the product does not de-energize. In this case, the product must be de-energized by 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 WEB UI connection.



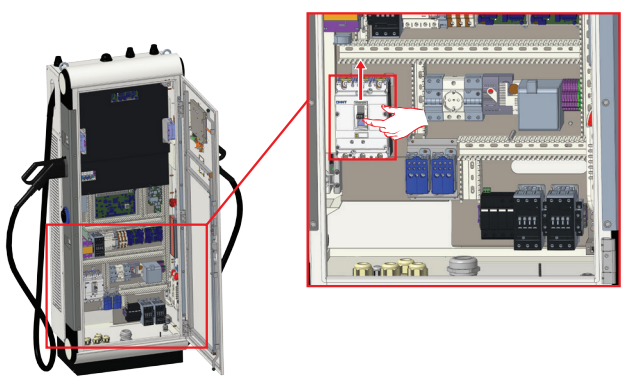
10 - CIRCUIT BREAKER LOCATIONS FOR CHARGING OUTPUTS

⚠ CAUTION

- To open the front cover, see the “Opening the front covers” section in the product installation manual.
- If any RCCB and/or MCB has been activated in the version with 22kW(1) AC output, check the insulation of the related output cable. Then, switch the RCCB and/or MCB on as shown in the figure below.



- If the MCB has been activated only in the versions with CCS output, check the insulation of the related output cable. Then, switch the MCB on as shown in the figure below.



11 - ERROR AND MALFUNCTION CONDITIONS

There are two types of errors or malfunctions:

- **Common Errors:** This malfunction or error affects all four outputs.
- **Charge Output Errors:** Only one socket or plug is affected by this malfunction or error condition.

11.1 - ERROR CONDITIONS

Problem	Possible Causes	Recommended Solutions
Power Outage	There is a power outage or the mains voltage is not within the specified range.	Check that the input current switches are activated and that the input voltage range and rotation are as specified in the installation manual.
Fan Failure	The fan is faulty.	Check the fans. Remove or clean any element that may prevent the fan blades from rotating.
The CCS output is unavailable	RCCB activated	Check the cable insulation first. Switch the RCCB on. (See. “CIRCUIT BREAKER LOCATIONS FOR CHARGING OUTPUTS“ section). Check that the station is functional.
All outputs are unavailable	General error	Please check if there is a power outage. Then check the upstream distribution box current switch. If the outputs are still unavailable, please contact the authorized service.

12 - CLEANING AND MAINTENANCE

⚠ ⚠ DANGER

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

13 - DC DEVICE PERIODIC MAINTENANCE LIST

	Maintenance Period (year)									
	1	2	3	4	5	6	7	8	9	10
Air filters	R	R	R	R	R	R	R	R	R	R
Plugs (AC&DC)	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
Fan	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 terminals	T	T	T	T	T	T	T	T	T	T
Body	C	C	C	C	C	C	C	C	C	C
Grounding resistance	M	M	M	M	M	M	M	M	M	M

C : Clean
I : Inspect (check, approve, clean, tighten or replace if necessary)
M: Measure
T : Tighten
R : Review

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

Plugs (AC&DC)
All spark plugs should be checked when going for maintenance. If the plug is broken or cracked, it should be replaced. Furthermore, a charging test should be performed with all Plugs.

Screen
The screen should be checked by pressing the touch screen when going for maintenance. It can be controlled by pressing all the functions on the screen. If there is no problem with the touch-screen feature, the screen should be cleaned. Distribution elements (MCCB, MCB RCCB).

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

AC input terminals
The AC input terminals should be checked and tightened when going for maintenance These terminals should be tightened with a torque of 8 Nm for metric 8 bolts and 10 Nm for metric 10 bolts.

Fan
Fans should be checked when going for maintenance. In case of any breakage or damage, the damaged fan should be replaced. If there is no problem with the fans, a charging test should be performed. It should be checked whether the fans are rotating during this charging.

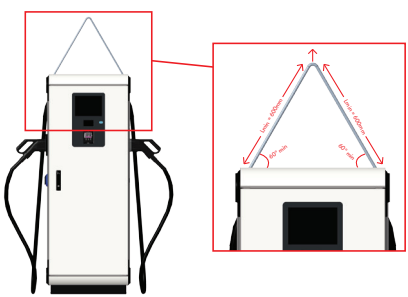
DC relay terminals
DC relay ends should be checked when going for maintenance. Tightening process should be performed with 6.5 Nm.

DC output cable and terminals
DC output cable and terminals should be checked when going for maintenance. They should be checked for any damage.

Body
The outer cabinet should be cleaned when going for maintenance.

Grounding resistance
A mechanism for measuring with a megger should be installed when going for maintenance. After the piles are driven, the voltage between the two piles should be less than 1V.

In cases where product transportation is required
During lifting, it is necessary to use 2 ropes of min 600mm (in case of using a single rope of L min=1200mm, the rope must be fixed from the middle lifting part).
During lifting, there should be a minimum angle of 60 degrees at both rope ends as shown in the image. Using a shorter sling will cause damage to the product.



14 - 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.

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