VESTEL
MOBILITY

ELECTRIC VEHICLE CHARGER
EVC03 HP SIRIUS SERIES

User Manual

CONTENTS

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!! For products without emergency button;

If any suspicion or emergency occurs at the charging station other than normal operation, stop charging via the vehicle (key or button inside the vehicle depending on the vehicle model) and pull the plug as the first option. As a second option, switch off the MCB or RCCB in the panel energised to the product by the installation company.

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 (MCCB and RCCB) in upstream distribution panel. Consult your local dealer.
- The ambient temperature range during charging should be between –35 ˚C and +55 ˚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 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.
- 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.
- The allowed current value of the service socket is maximum 10A.

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 Global 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.

1.5 - REQUIRED UPSTREAM PROTECTIONS

- Class-I/B Lightning Protection must be connected to the upstream distribution panel. Min. cable length between the charger and the protection device recommended to be 10m. *The charger contains Class II/C Type Surge Protector Device (SPD).
- MCCB (Thermic Magnetic Adjustable) must be connected to the upstream distribution box.
- Residual Current Device (Toroid) must be connected to the upstream cabinet.
- Single pole 20A MCB must be placed in the upstream cabinet, on the neutral line.

Model	Power output	Input Voltage	Input AC Current	Recommended Cross Section Values L1-L2-L3 (mm2) - (Copper Conductor Cable)	Recommended Cross-Section Value for Neutral (mm2) - (Copper Conductor Cable)	Recommended Cross-Section Value for PE (mm2) - (Copper Conductor Cable)
EVC03-DC HP160**(UP) (Air cooled)	160kW	400V (nom.)	370A	240	16	240
		360V (-%10)	410A			
EVC03-DC HP240** (Air cooled)	240kW	400V (nom.)	370A	240	16	240
		360V (-%10)	410A			

2 - DESCRIPTION

Model Name	**EVC3-HP Series (Name Coding: EVC03-HP*****)** 1st Asterisk (*) : Rated Power 160 : 160 kW DC Power Output (Upgradeable) 240 : 240 kW DC Power Output 2nd Asterisk (*) : DC output combination 1 C : CCS Output (Air cooled cable) 3rd Asterisk (*) : DC output combination 2 C : CCS Output (Air cooled cable) 4th Asterisk (*) Blank : No DC Meter EICH : Eichrecht Meter 5th Asterisk (*) : VE : Vestel Edition
Cabinet	EVC03HP240VE

3 - ELECTRICAL SPECIFICATIONS

IEC Protection class		Class - I
Power Input	**Input Rating**	• 400 Vac ±10% , 50/60 Hz, 370A / phase- (160UP/240 kW option)
	Connection	3P - N - PE
	Residual Current Monitoring	230Vac RCBO 1P+N, Type A, 30mA-16A (system)
	Power Factor	> 0.99
	Efficiency	> % 95
	Standby Power	< 110W
Output - 1 CCS	**Max Power**	**160/240kW options** • 1 x 160kW or 1 x 240kW • 2 x 80kW or 2 x 120kW
	Voltage Range	200 – 920 Vdc
	Maximum Current	**160/240kW option** Air cooled cable variants available, derating may be applied. 300A continuous, up to 500A with air cooled cable • 1 x 160kW or 1 x 240kW • 2 x 80kW or 2 x 120kW
	Interface Compliance	IEC 62196-1 / 3 IEC 62196-3-1 IEC 61851-1 / 23 / 24 ISO 15118-1 / 2 / 3 DIN 70121

Output - 2 CCS	**Max Power**	**160/240kW options** • 1 x 160kW or 1 x 240kW • 2 x 80kW or 2 x 120kW
	Voltage Range	200 – 920 Vdc
	Maximum Current	**160/240kW option** Air cooled cable variants available, derating may be applied. 300A continuous, up to 500A with air cooled cable • 1 x 160kW or 1 x 240kW • 2 x 80kW or 2 x 120kW
	Interface Compliance	IEC 62196-1 / 3 IEC 62196-3-1 IEC 61851-1 / 23 / 24 ISO 15118-1 / 2 / 3 DIN 70121
Internal Protections		Residual current sensing, Insulation monitoring, Over current / Over voltage / Under voltage / Short circuit / Over Temperature / Surge Protection

4 - USER INTERFACE & AUTHENTICATION

Display	17" Color TFT LCD
User Interface	Resistive Touch Screen
RFID Reader Module	ISO-14443A/B and ISO-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/

5 - CONNECTIVITY

LAN Connectivity	Ethernet
WLAN Connectivity	2.4GHz/5GHz: 802.11 a/b/g/n/ac
Cellular 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	Metal Panel	
Protection Degree	Ingress Protection Impact Protection	IP54 IK10
Cooling	Forced Air Cooling Fan	
Cable Length	CCS: 4.50 m CCS: 4.50 m	
Dimensions (Product)	2109 mm (Height) x 840mm (Width) x 1026 mm (Depth)	
Dimensions (with packing)	2300.0 mm (Height) x 1000.0 mm (Width) x 1090.0 mm (Depth)	
Weight (Product)	636 kg	
Weight with Package	828,5 kg with packing	

7 - ENVIRONMENTAL TECHNICAL SPECIFICATIONS

Operating Condition	Temperature	-35˚C to + 55 ˚C (Derating is applied over +40˚C to +50 ˚C) For products with credit card option-20˚C to + 55˚C (Derating is applied over +40˚C to +50 ˚C)
	Humidity	5% to 95% (Relative humidity, non-condensing)
	Altitude	0 - 2,000m
Storage Condition	Temperature Humidity	-40 ˚C to 80 ˚C 5% - 95% (relative humidity, non-condensing)

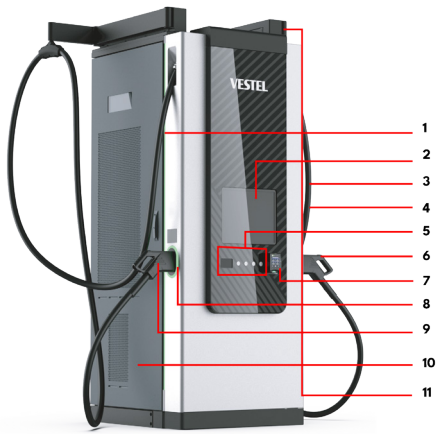
If the product is kept de-energised in a cold environment (till t < -20˚C), it must be allowed to warm up for a certain period of time before the current is drawn.

8 - BEHAVIOR OF STATUS INFORMATION LED

STATUS OF LED		MODE
	Blue 1-second Blink	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.
	Green flashing Illuminates	In the process until charging starts.
	Charge percentage is according to the number of leds, the top 3 leds blinks.	While Charging.
	Blue Illuminates Steadily	Charging is suspended or finished.
	Red Illuminates Steadily	Error.
	Blue until plug is removed.	Charging is finished.

9 - GENERAL INFORMATION

9.1 - INTRODUCTION OF THE PRODUCT COMPONENTS



1- LED
2- Display
3- Access cover for fans, relays and main power button
4- Emergency Button
5- RFID Card Reader, Buttons
6- DC Outlet
7- Payment Terminal (optional)
8- CCS Dummy Socket
9- DC Outlet
10- Access cover for CTB, PLC Board and HMI, Power Modules
11- Cable Managment (optional)

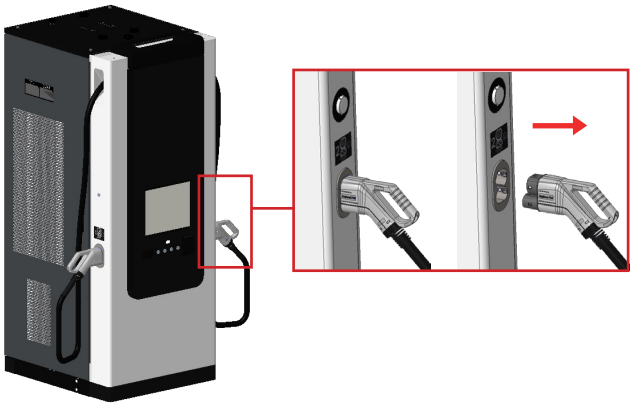
All products' images are given for representative purpose only

9.2 - PLUGGING CHARGING CABLE

Plug/unplug the charging cable to/from the socket outlet.

9.2.1 - CCS Outlet

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

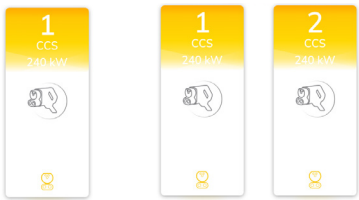


All products' images are given for representative purpose only

9.3 - CHARGING SCENARIOS (Includes all scenarios)

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

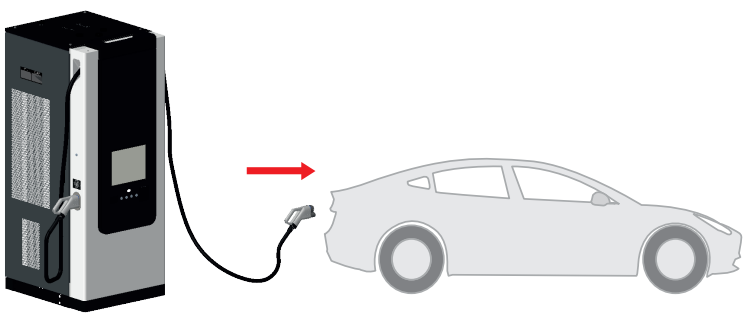
NOTE: The power value in the display image may vary depending on the power version of the product.



9.3.1 - DC CCS Outlet

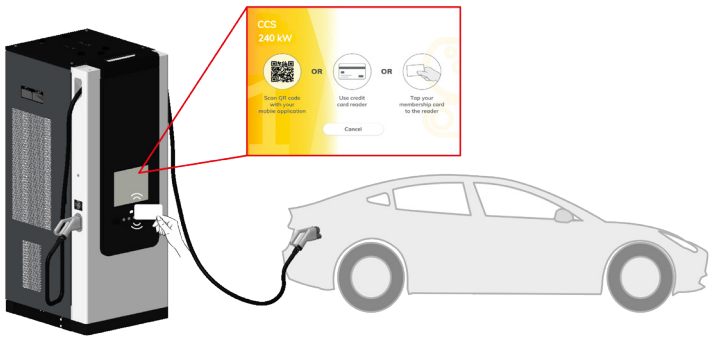
9.3.1.1 - VEHICLE CONNECTION & CHARGING

1- Connect charging cable to move to payment screen.



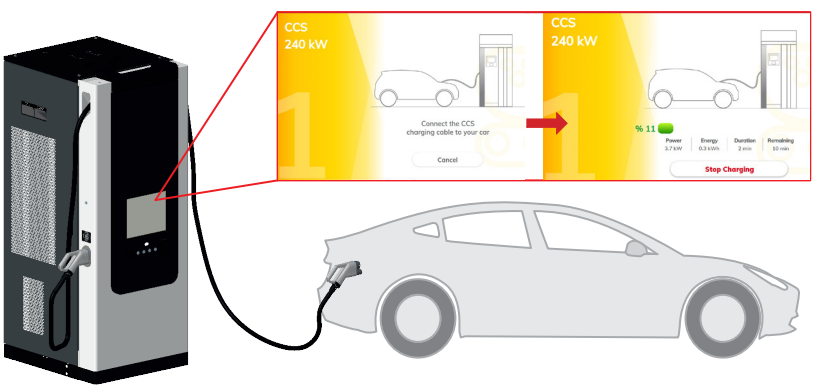
All products' images are given for representative purpose only

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 charging session to start. Charging state can be seen in charging page.



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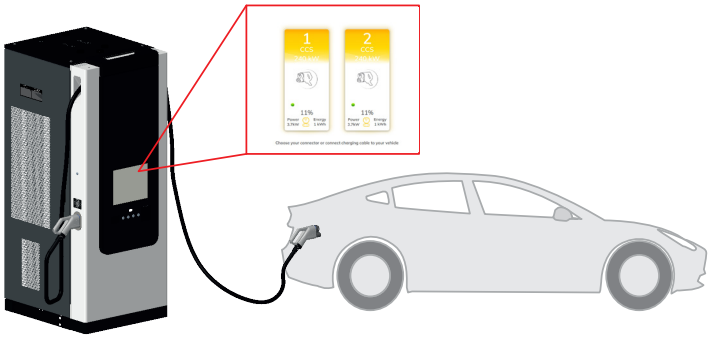
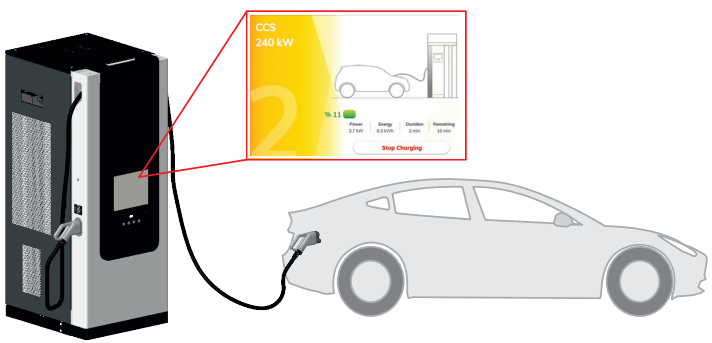
4- While charging, charging state can be seen in the main menu.



All products' images are given for representative purpose only

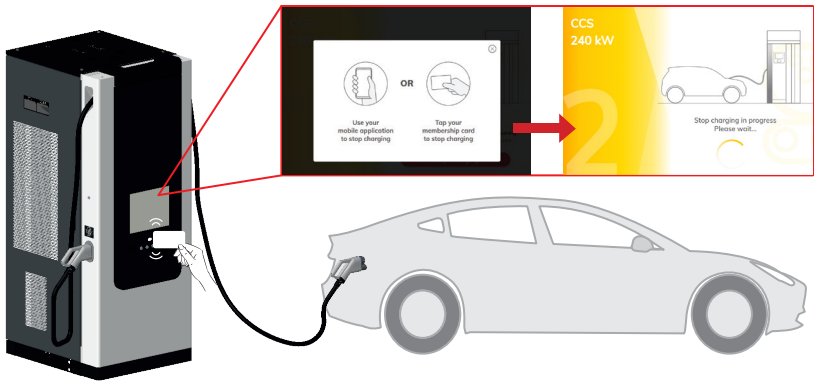
9.3.1.2 - STOP CHARGING

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



All products' images are given for representative purpose only

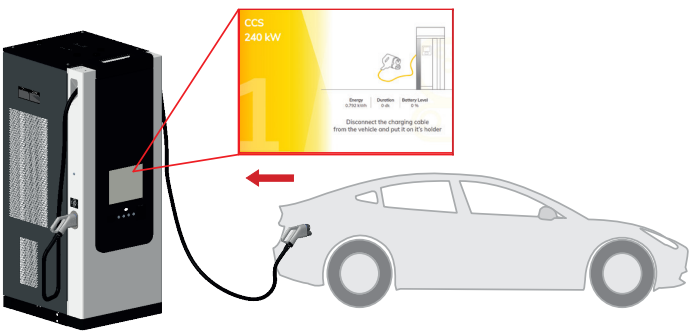
2- Scan your RFID card or scan QR Code to stop charging.



All products' images are given for representative purpose only

3- Disconnect the charging cable.

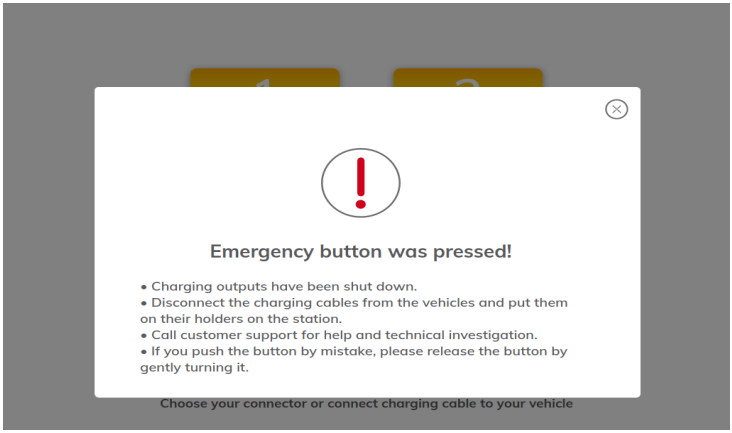
After disconnection, you will automatically move to the main screen.



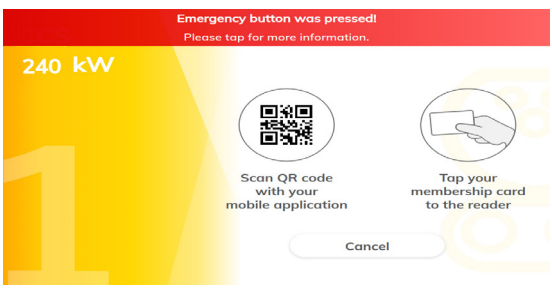
All products' images are given for representative purpose only

9.4 - EMERGENCY STOP (Optional)

Please follow screen when emergency stop pressed.



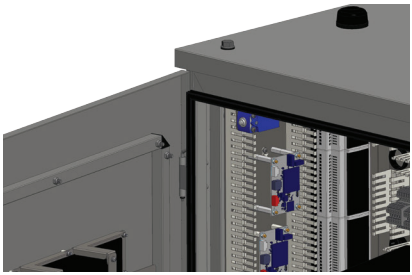
Choose your connector or connect charging cable to your vehicle



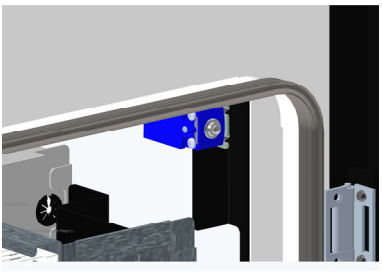
9.5 - DOOR SWITCH/ TILT SENSOR

9.5.1 - DOOR SWITCH

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



Side Doors

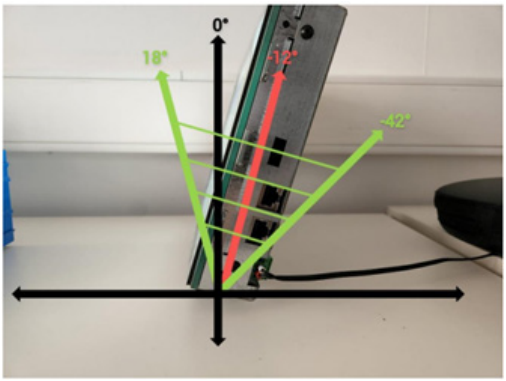


Front Door

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. But it does not cut the product energy. In this case, the product must be de-energised by the charging station operator from the energy panel to which it is connected.

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



9.6 - ERROR AND FAULT CONDITIONS

• There are two type of errors or faults:

• **General Erros**: This fault or error effects all two outputs.

• **Charging Output Errors:** Only one socket or plug effected by this fault or error condition.

9.6.1 - 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.
Fan Failure	Fan malfunctioning.	Check the fans. Remove or clean any elements that may prevent fan blades from spinning.
CCS output unavailable	RCCB is tripped	Check cable isolation first. Turn on RCCB. (See section “CIRCUIT BREAKER LOCATIONS FOR CHARGING OUTPUTS“) Check functionality for the station output.
Chademo output unavailable	RCCB is tripped	Check cable isolation first. Turn on RCCB. (See section “CIRCUIT BREAKER LOCATIONS FOR CHARGING OUTPUTS“) Check functionality for the station.
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.

10 - 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.

11 - 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 (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
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.

Screen

When going for maintenance, the screen should be checked by pressing the touchscreen. It can be controlled by pressing all the functions on the screen. If there is no problem with the screen touch, the screen should be cleaned.

Distribution elements (MCCB, MCB RCCB)

Distribution elements (MCCB, MCB RCCB) 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.

Fan

Fans should be checked when going for maintenance. In case of any breakage or damage, the damaged fan must be replaced. If there is no problem with the fans, a charging attempt should be made. It should be checked whether the fans rotate during this charging.

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

12 - 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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CE