VESTEL

MOBILITY

ELECTRIC VEHICLE CHARGER

BASE EVC04 Series

Installation Guideline

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 - 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 –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 condition. If product has RCCB, the ambient temperature range should be between –25 ˚C and +50 ˚C without direct sunlight.
- 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.
- The lowest part of the socket-outlet shall be located at a height between 0,5 m and 1,5 m above ground level.
- Adaptors or conversion adapters are not allowed to be used. Cable extension sets are not allowed to be used.

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

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

1.2 - 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.

1.3 - 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 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.

1.4 - WALL MOUNTING WARNINGS

- Read the instructions before mounting your charging station on the wall.
- Do not install the charging station on a ceiling or inclined wall.
- Use the specified wall mounting screws and other accessories.
- This unit is rated for indoor or outdoor installation. If this unit is mounted outdoors, the hardware for connecting the conduits to the unit must be rated for outdoor installation and be installed properly to maintain the proper IP rating on the unit.

2 - DESCRIPTION

Model Name	**MODEL DESCRIPTION: EVC04-AC**-*** EVC04 : Electric Vehicle AC Charger (Mechanical Cabinet 04) 1. Asterisk (*) : Rated Power 7 : 7.4kW (1 Phase Supply Equipment) 11 : 11kW (3 Phase Supply Equipment) 22 : 22kW (3 Phase Supply Equipment) 2. Asterisk (*) : The 2nd asterisk may include combinations of the following Empty : No RCCB A : Type A Charging Unit with RCCB E : EV / ZE Ready Charging unit compliance 3. Asterisk (*): 3. The asterisk may indicate any of the following Empty : Case-B Connection with normal socket T2S : Case-B Connection with protected socket T2P : Case C Connection with Type-2 socket T1P : Case C Connection with Type-1 socket
Case	EVC04

3 - GENERAL INFORMATION

3.1 - INTRODUCTION OF THE PRODUCT COMPONENTS

3.1.1 - RCD MODELS

Socket Equipped Models

Tethered Cable Models

EN Socket Models

1- RFID Card Reader

2- Status indicator LED

3- Access cover for residual current device (Optional)

4- Socket Outlet

5- Product Label

6- Charging station connection cable union nut

7- Charging station data cable connection gland nut

8- Charging Cable (Optional) or Out of use

EN Tethered Cable Models

1- RFID Card Reader

2- Status indicator LED

3- Access cover for residual current device (Optional)

4- Dummy Socket

5- Charging Plug

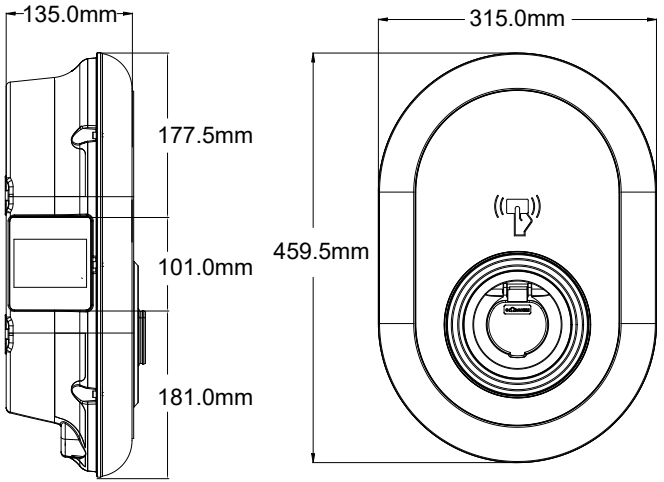
6- Product Label

7- Charging station connection cable union nut

8- Charging station data cable connection gland nut

9- Charging cable

3.1.2 - DIMENSIONAL DRAWINGS



4 - REQUIRED EQUIPMENT, TOOLS AND ACCESSORIES

		
8 mm Drill Bit	Hammer Drill	PC
		
Volt Indicator	Torx T25 Security Screwdriver	Water Level
		
Flathead Screwdriver (tip width 2.00-2.5 mm)	Pointed Spudger	Right Angle Screwdriver Adapter/Torx T20, Safety Tip
		
RJ45 Crimping Tool		

5 - TECHNICAL SPECIFICATIONS

This product complies with EC61851-1 (Ed3.0) standard for Mode 3 use.

Model		EVC04-AC22 Series	EVC04-AC11 Series	EVC04-AC7 Series
IEC Protection class		Class - I		
Vehicle Interface	**Socket Model**	Socket TYPE 2 (IEC 62196)		
	Cable Model	Cable with TYPE 2 (IEC 62196) Female Plug		
Voltage and Current Rates		230/400V~50 Hz-3-faz 32A	230/400V~50 Hz-3-faz 16A	230V~50 Hz-1-faz 32A
AC Maximum Charge Output		22kW	11kW	7.4kW
Built-in Residual Current Sensing module		6mA		
Required Circuit Breaker on AC Mains		4P-40A MCB Type-C	4P-20A MCB Type-C	2P-40A MCB Type-C
Required Leakage Current Relay on AC Mains (for products which are not equipped with RCCB Type A)		4P -40A - 30mA RCCB Type-A	4P -20A - 30mA RCCB Type-A	2P -40A - 30mA RCCB Type-A
Required AC Mains Cable		5x6 mm^2 (< 50 m) External Dimensions: Ø 18–25 mm	5x4 mm^2 (< 50 m) External Dimensions: Ø 18–25 mm	3x6 mm^2 (< 50 m) External Dimensions: Ø 13-18 mm

AUTHORIZATION

RFID / NFC Module **(Only for supported models)**	ISO-14443A/B and ISO-15693 NFC (ISO/IEC 18092 – ISO / IEC 21481)

MECHANICAL PROPERTIES

Material	Plastic
Size	315 mm (Width) x 459.5 mm (Height) x 135 mm (Depth)
Measurements (Package)	405 mm (Width) x 530 mm (Height) x 325 mm (Depth)
Weight	5 kg for model with socket, 8.9 kg for model with cable, together with packaging
AC Mains Cable Measurements	Ø 18-25 mm for 22kW version Ø 18-25 mm for 11kW version Ø 13-18 mm for 7.4kW version

ENVIRONMENTAL SPECIFICATIONS

Protection Type	Ingress Protection	IP54
	Impact Protection	IK10 (has Screen IK08 protection, optional)
Operating Conditions	Temperature	-35 ˚C and 55 ˚C (without any direct sunlight) -25 ˚C to 50 ˚C (optionally product has RCCB)
	Humidity	5% - 95% (relative humidity, without condensation)
	Altitude	0 - 4,000m
Storage Conditions	Temperature	-40 ˚C and 80 ˚C
	Humidity	5% - 95% (relative humidity, without condensation)
	Altitude	0 - 4,000m

6 - CHARGING STATION INSTALLATION

6.1 - SUPPLIED INSTALLATION EQUIPMENT and ACCESSORIES

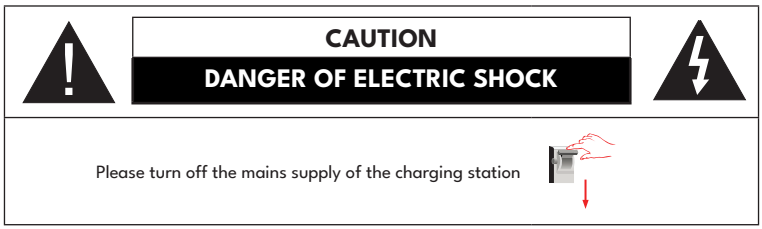
Accessory/Material Name	Use for	Quantity	Image
Dowel (M8x50 Plastic Dowel)	Mounting the charging station to the wall	4	
Torx T25 Safety Screw (M6x75)	Mounting the charging station to the wall	4	
Gasket for screw 6X75	IP for screws which are used for mounting charging station to the wall.	4	
Torx T20 Safety L Type Wrench	IP for the screws that are used to mount the charging station to the wall.	1	
Adjustable Wrench	Disassembling and fastening the cable glands	1	
RCCB Wrench (Optional)	To open the RCCB Cover	1	
Mounting Template	Mounting the charging station to the wall	1	
O-Ring	Mounting the charging station on a pole	3	
Screw M6X20	Mounting the charging station on a pole	3	
Screw M6X30	Installation of the charger mounted on a metal surface and ensuring earth continuity. This screw must be installed in the right hole of the charging station on the wall. There should be rubber under this screw to fix the ground wire.	1	
IP Rubber	Fixing the ground cable with the screw M6x30. This rubber should be placed to right-down Wall mount hole of charging station, under the ground cable and screw M6x30	1	
User RFID Card	Start & Stop Charging	2	
Master RFID Card	Adding & Removing the User RFID Cards to Local RFID List	1	
Installation Guide (Optional)	Installation Manual	1 Set	
Instruction Book (Optional)	User Manual	1 Set	
QSG	Quick Start Guide	1 Set	

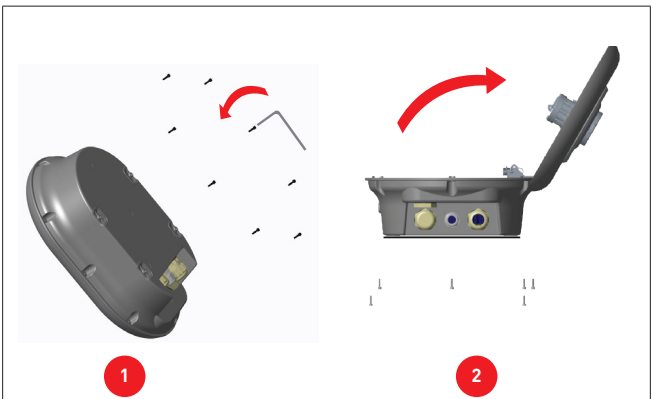
6.2 - PRODUCT INSTALLATION STEPS

CAUTION!

- Make sure that the earth resistance of the installation does not exceed 60 ohms.
- Please read these instructions carefully before wall-mounting your charging station.
- Do not mount your charging station to the ceiling or an inclined wall.
- Use the specified wall-mounting screws and other accessories.
- This charging station is classified as suitable for indoor and outdoor installation. If the device is installed outside the building, the equipment to be used for connecting the conductors to the device must be suitable for outdoor use and installation must protect the IP rating of the device.

6.2.1 - OPENING THE CHARGING STATION COVER





1- By using Torx T20 Safety Tip, remove the screws of the cover with the Torx T20 Safety L-Wrench or the Right Angle Screwdriver Adapter.

2- Open the cover.

6.2.2 - WALL-MOUNTING

Wall mount installation is common for all charging station models.

1 - Open the product front cover by following the instruction.

2- Place the charging station to the Wall by using the mounting template which is given in accessory bag and mark the drill bit holes with a pencil.

3- Drill the wall on the marked points using the impact drill (8mm drill bit).

4- Place the dowels into the holes.

5- Tighten the security scews (6x75) of the product using Torx T25 Security Screwdriver.

6- Insert the AC mains cable into the charging station from the left cable gland which below the station. Follow the AC Mains Connection instructions on the next pages, depending on the model of the charger. (Single/Three Phase)

7- When mounting the charging station on conductive metal surfaces such as metal poles, etc., you can make the grounding connection via the “bottom right” screw using the grounding extension cable as shown in the figure below. To ensure grounding, you need to change the position of the ground wire from “a” to “b” as shown in the figure below. The figure below shows the ground connections for single phase and three phase. Follow the instructions below.

i. Insert the plastic support (IP rubber supplied in the unit’s accessory package) into the fixing hole (position “b”)

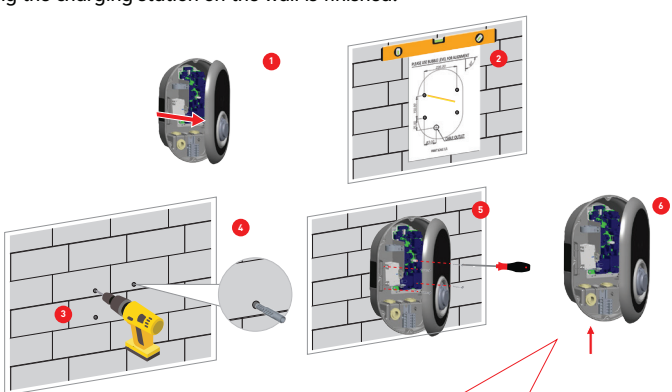
ii. Secure the ground wire using the M6x30 screw included in the artwork package, which is also used to mount the product to the conductive metal surface.

Note: Both grounding and sealing are achieved by first putting a rubber gasket under the ground wire and then tightening the screw, respectively, as shown in the figure.

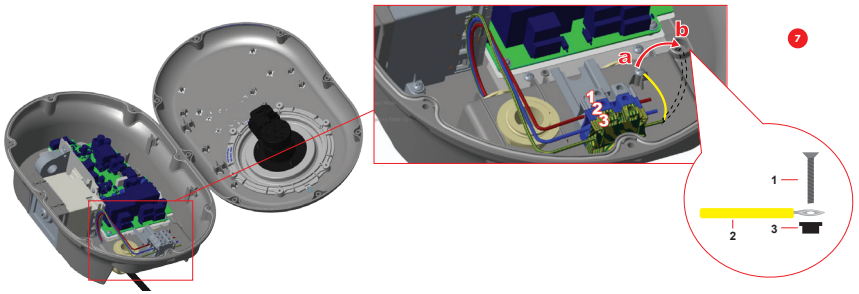
8- Tighten the cable glands as shown in the figure. Before closing the cover of the charging station, follow the instructions in next sections if any function related to these sections are used.

9- To close the cover of the charging station, tighten the cover screws which you were removed with Torx T20 Security L-Wrench or Right Angle Screwdriver Adapter using Torx T20 Security Bit. (Min:1.2Nm; Max:1.8Nm)

10- Mounting the charging station on the wall is finished.



Before next step (7), Please check the instructions for Single Phase or Three Phase cable connections.



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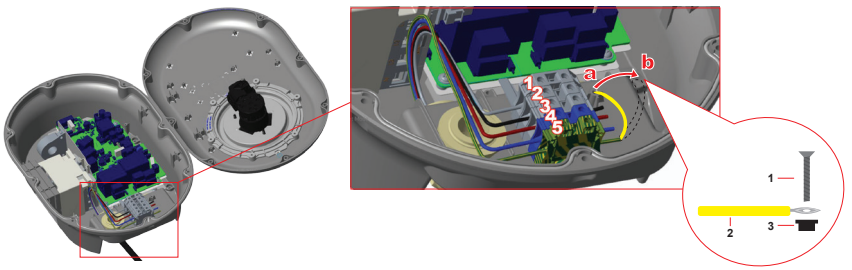

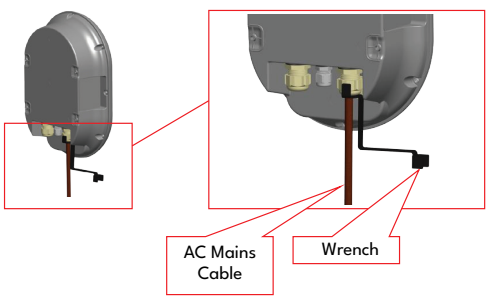

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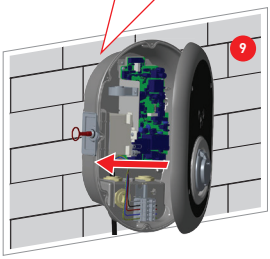
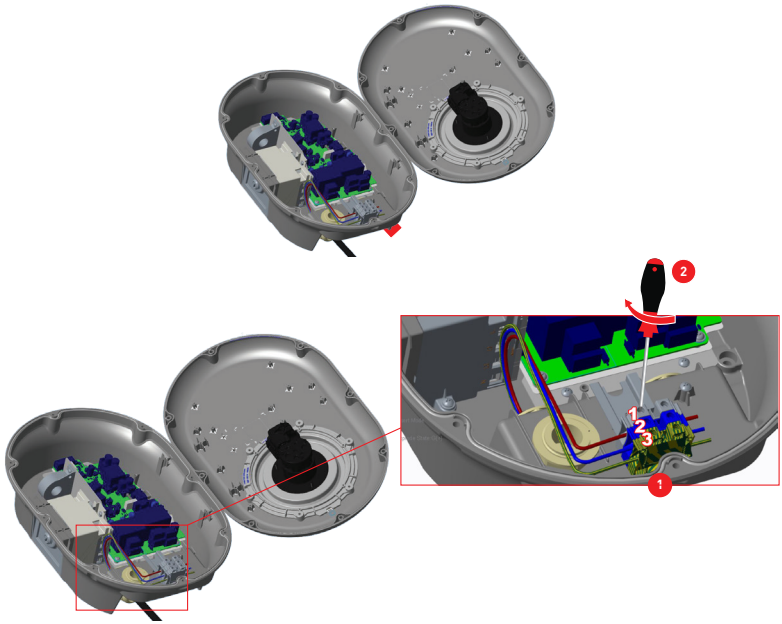
Before closing the cover of the charging station, check next instructions if any function related to these sections are used.



6.2.3 - MONOPHASE CHARGING STATION AC MAINS CONNECTION

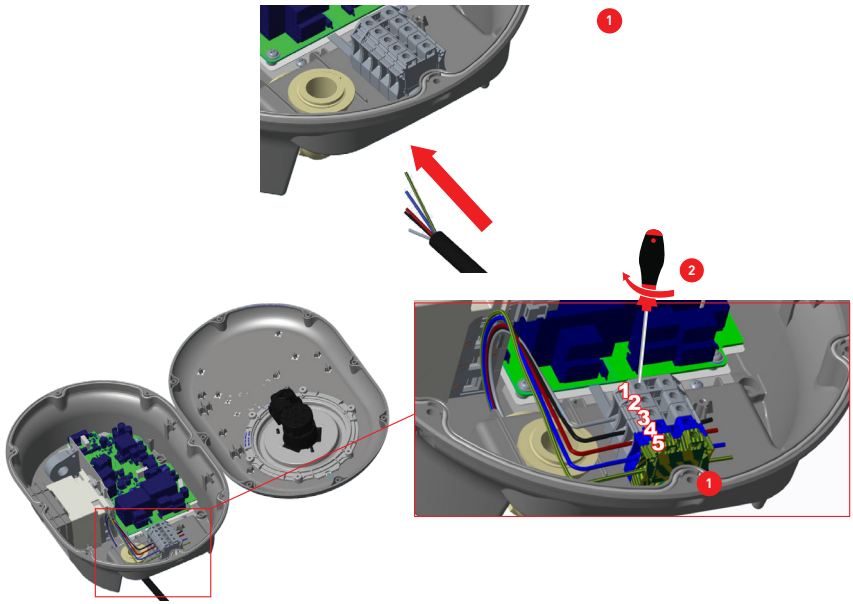


1- Place the cables into the terminal block as shown in the figure. Please check the following Table to match the AC Cable Colour with the Electricity Terminal number.

2- Tighten the screws of the terminal block with the 1.9-2 Nm tightening torque as shown in the figure.

Electricity Terminal	AC Cable Colour
1	AC L1 (Brown)
2	AC Neutral (Blue)
3	Earth (Green-Yellow)

6.2.4 - TRIPHASE CHARGING STATION AC MAINS CONNECTION



1- Place the cables into the terminal block as shown in the figure. Please check the following Table to match the AC Cable Colour with the Electricity Terminal number.

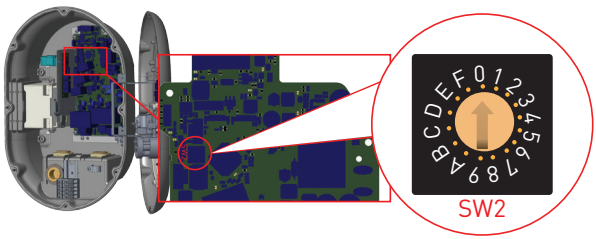
2- Tighten the screws of the terminal block with the 1.9-2 Nm tightening torque as shown in the figure.

Electricity Terminal	AC Cable Colour
1	AC L3 (Grey)
2	AC L2 (Black)
3	AC L1 (Brown)
4	AC Neutral (Blue)
5	Earth (Green-Yellow)

If the triphase charging station is to be installed as a a monophase station, phase-cable connection to L1 terminal should be made as shown in Figure below.

6.2.5 - SETTING THE CURRENT LIMITER

The charging station has current limiter (rotary switch) on the mainboard which is shown in figure below. This switch is used for adjusting the current and power of charging station. The arrow in the middle of the rotary switch must be adjusted gently by rotating with a flathead screwdriver to the position of the required current rate. The details of the current rates are desicribed in table below.



Other Location

Current Limiter Position	Current Limit Value			
	Phase	22 kW	11kW	7.4kW
0	1-Phase	10 A	10 A	10 A
1		13 A	13 A	13 A
2		16 A	16 A	16 A
3		20 A		20 A
4		25 A		25 A
5		30 A		30 A
6		32 A		32 A
7				
8	3-Phase	10 A	10 A	
9		13 A	13 A	
A		16 A	16 A	
B		20 A		
C		25 A		
D		30 A		
E		32 A		
F				

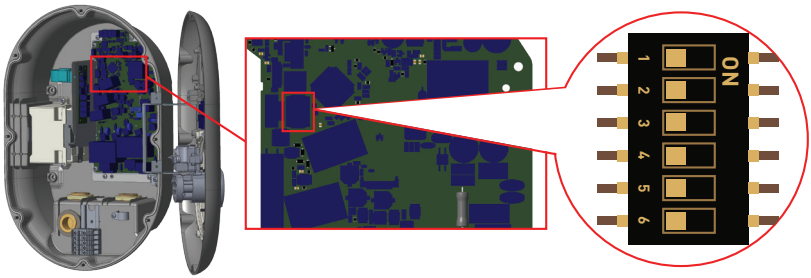
Required Circuit Braker on AC Mains	
EV Charging Station Current Limiter Setting	C-Curve MCB
10 A	13 A
13 A	16 A
16 A	20 A
20 A	25 A
25 A	32 A
30 A	40 A
32 A	40 A

Optionally only for Germany

Current Limiter Position	Current Limit Value			
	Phase	22 kW	11kW	7.4kW
0	1-Phase	10 A	10 A	10 A
1		13 A	13 A	13 A
2		16 A	16 A	16 A
3		20 A		20 A
4		25 A		25 A
5		26 A		26 A
6		32 A		32 A
7				
8	3-Phase	10 A	10 A	
9		13 A	13 A	
A		16 A	16 A	
B		20 A		
C		25 A		
D		26 A		
E		32 A		
F				

Required Circuit Braker on AC Mains	
EV Charging Station Current Limiter Setting	C-Curve MCB
10 A	13 A
13 A	16 A
16 A	20 A
20 A	25 A
25 A	32 A
26 A	32 A
32 A	40 A

6.2.6 - DIP SWITCH SETTINGS



The explanations for the pin settings of the DIP switch are provided in the following table.

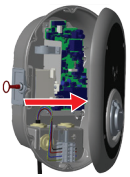
Pin Number	**Remarks**
Pin-1	Master and User RFID Card Resetting
Pin-2	External Activation Inlet Function
Pin-3	Locked Cable Function (only models with socket)
Pin 4-5-6	Power Optimization (requires Optional Accessories)

6.2.6.1 - LOSING THE MASTER RFID CARD

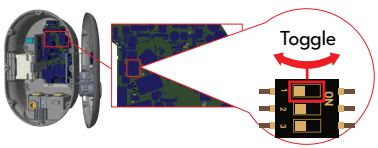
If you lose the registered master RFID card, you can register a new Master RFID card by following the steps below after making sure that your vehicle is not connected to the charging station.

1- Turn the power of the charging station off.

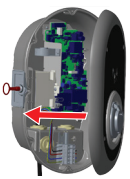
2- Open the cover of the product as specified in the installation manual.



3- Change the position of the 1st DIP Switch by using a pointy awl or a plastic pointed tool. The position of the DIP Switch is shown in the figure below.



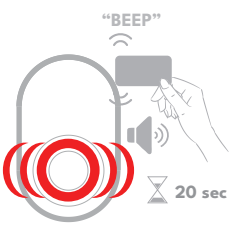
4- Close the cover of the product as specified in the installation manual.



5- Turn the power of the charging station on.

The master and user RFID cards will be deleted.

6- Status LED blinks red for 20 seconds while registering the new RFID card. You can register the new master RFID card within 20 seconds by scanning your new RFID card. (If you have not registered any cards during this period, you cannot register user cards and your station remains in the automatic charging start mode.) You can follow the steps in "Authorized Charging Mode" section for adding user RFID cards after registering the new master RFID card.



6.2.6.2 - DATA CABLE CONNECTION

1- Remove the rubber plug from the cable grommet.

2- Pass the cable through cable holes.

3- Pass the cable through RCCB slot holes.

4- Finally, depending on the function(s) to be used, check the following section to connect the cables to the motherboard.

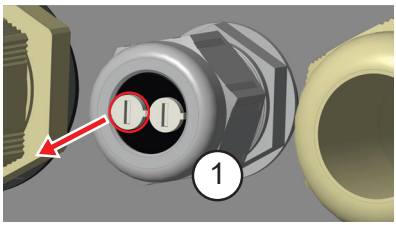
NOTE: The following data connection cables can be passed through cable holes:

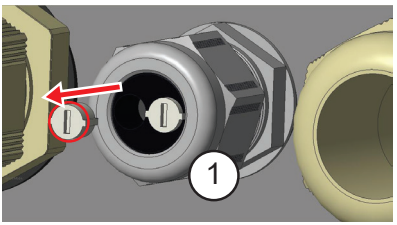
a. External activation inlet cable

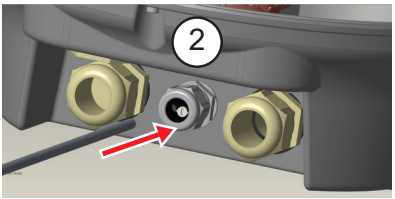
b. Power optimization measurement cable

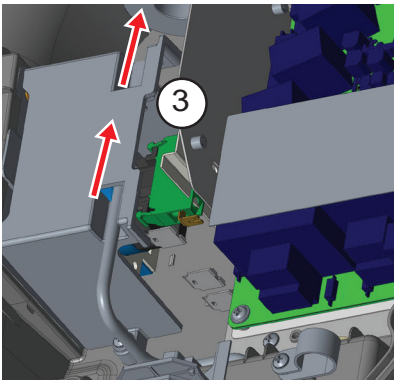
c. Load shedding trigger signal cable

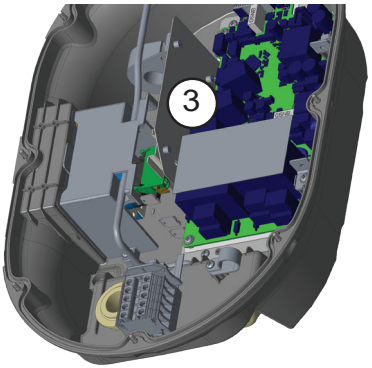
d. Shunt trigger module control signal cable for relay contact welding failure conditions





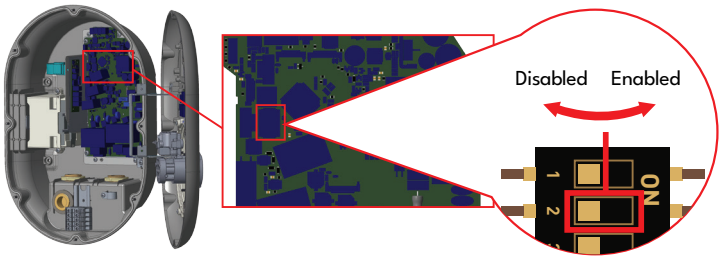


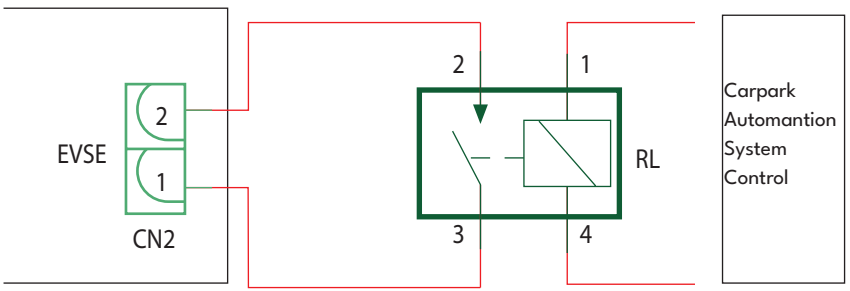




6.2.6.3 - EXTERNAL ACTIVATION INLET FUNCTION

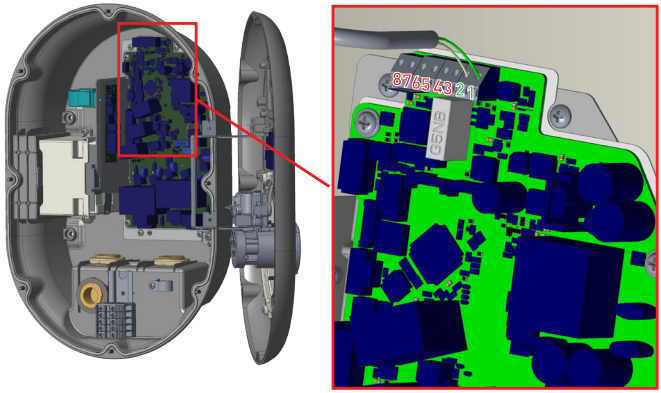
Your charging station has an external potential-free enable/disable function to integrate into parking lot automation systems, energy supply fluctuation control devices, timed switches, photovoltaic inverters, additional load control switches, external key lock switches, etc. DIP switch position 2 is used for enabling and disabling this function.





If the external relay (RL) is in non-conducting (open), the charging station will not be not be able to charge the electric vehicle.

You can connect potential free input signals as shown in above circuitry (see figure).



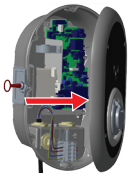
Cable Terminal	Cable Colour
1 (CN2-1)	Green
2 (CN2-2)	Green + White Green

6.2.6.4 - LOCKABLE EXTERNAL CHARGING CABLE FUNCTION (Model with socket)

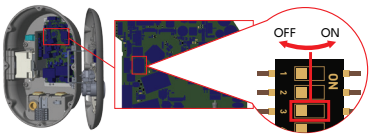
The external charging cable belonging to the user is connected to the station and the model with socket starts behaving like a model with cable by following the steps below.

1- Turn the power of the charging station off.

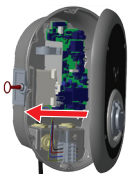
2- Open the cover of the product as specified in the installation manual.



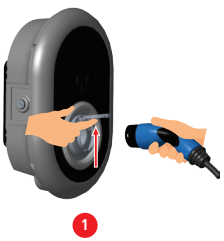
3- Turn the DIP Switch pin 3 to the ON position using a pointy awl or a plastic pointed tool to activate the lockable cable function. The position of the DIP Switch is shown in the figure below.

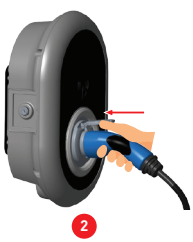


4- Close the cover of the product as specified in the installation manual.



5- Open the front cover of the socket and plug the charging cable to the socket.





6- Turn the power of the charging station on. The cable gets locked and the charging station starts behaving like the model with cable.

Note: The charging cable cannot be removed when the function is active (PIN 3 ON). The lock of the socket will be unlocked when this function is disabled (PIN 3 OFF).

6.2.6.5 - POWER OPTIMIZATION (REQUIRES OPTIONAL ACCESSORIES)

The EV charger has option to make single load balancing with different accessories.

1. Power Optimizer with External MID meter
2. Power Optimizer with External Current Transformer (CT)

To adjust the power optimizer, the slide switch (mode selection switch - SW3) on the control board should be in position to 1 or 2 as shown in figure. If the switch is set to position 3, power optimizer does not work.

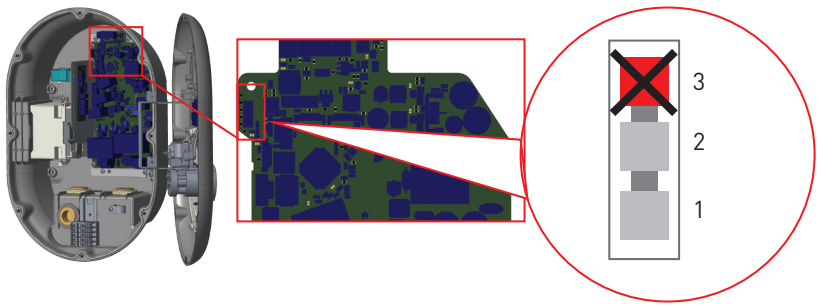


Figure-1

This feature is provided with an optional metering accessories which are sold separately. In power optimizer mode, the total current drawn from the main switch of the house by charging station and other household appliances is measured with current sensor integrated to the main power line. Current limit of the main power line of the system is set through the DIP switches inside the charging station. According to the limit set by the user, charging station adjusts its output charging current dynamically according to the measurement of main power line.

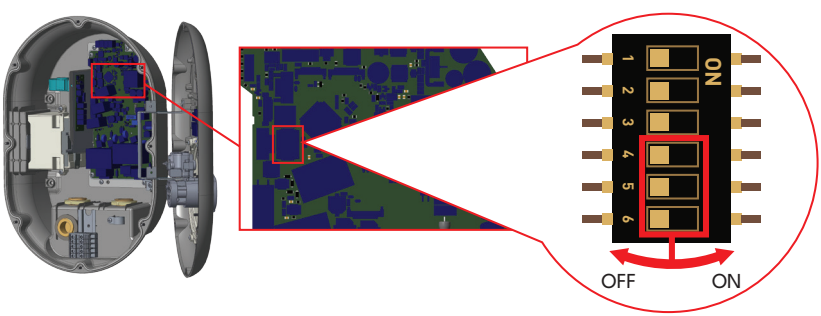


Figure-2

Last 3 DIP switch pins (4,5,6) shown in figure below corresponds to binary digits of the maximum current value as shown in the table (Table 2 is valid for France). When 4, 5, 6 pins are in OFF position, power optimizer functionality is disabled.

DIP Switch Positions			Current Limit Value
4	5	6	
OFF	OFF	OFF	Power Optimizer Disabled
OFF	OFF	ON	16
OFF	ON	OFF	20
OFF	ON	ON	25
ON	OFF	OFF	32
ON	OFF	ON	40
ON	ON	OFF	63
ON	ON	ON	80

Table-1

DIP Switch Positions			Current Limit Value
4	5	6	
OFF	OFF	OFF	Power Optimizer Disabled
OFF	OFF	ON	25
OFF	ON	OFF	30
OFF	ON	ON	40
ON	OFF	OFF	45
ON	OFF	ON	50
ON	ON	OFF	60
ON	ON	ON	90

Table-2 (Valid for France)

6.2.6.5.1 - POWER OPTIMIZER WITH EXTERNAL MID METER

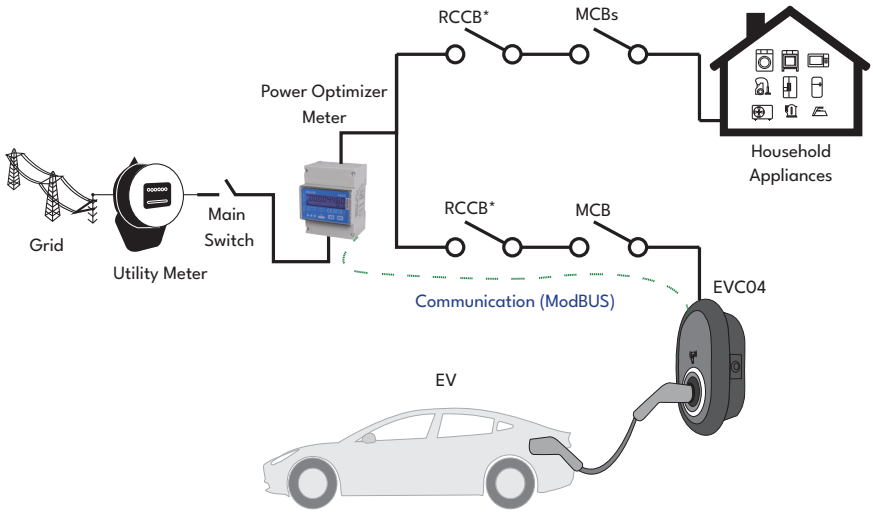
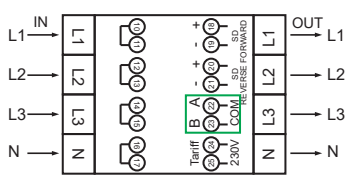


Image is Representative

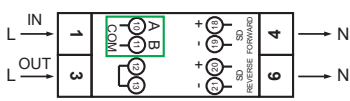
*This figures valid for variants which do not have integrated RCCB. If the charging station has integrated RCCB, there is no need to add additional RCCB in power line.

Power Optimizer Meter should be placed just after the main switch of the house as shown in the figure. Power Optimizer Meter wiring connections can be made according to the information below.

Three Phase

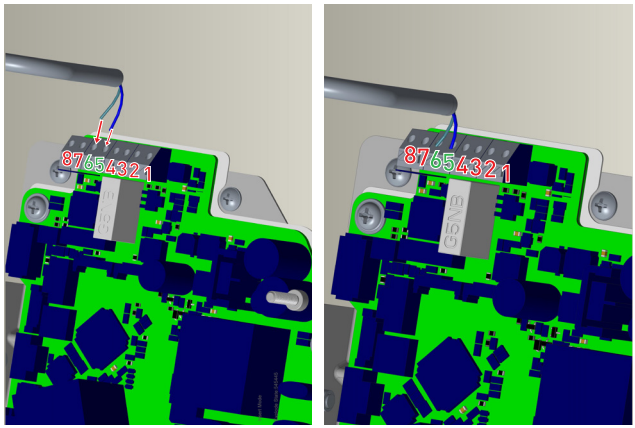


Single Phase



- 22-23: A-B (COM) Modbus connection over RS485 for three phase charging station models.
- 10-11: A-B (COM) Modbus connection over RS485 for single phase charging station models.

Related board wiring of Power Optimizer connections can be made as shown below:



Cable Terminal	Cable Color	Description
6 (CN20-2)	White Blue	A (COM)
5 (CN20-1)	Blue	B (COM)

6.2.6.5.2 - POWER OPTIMIZER WITH EXTERNAL CURRENT TRANSFORMER (CT) (Optional)

In external CT transformer usage; for Power Optimization (dynamic load management) to be used with household appliances and EV Charger together, 1 piece of External Current Transformer (FATS16L-100) is used for monophase EV Charging installation and 3 pieces of External Current Transformers are used for three-phase installation. In power optimizer mode, the total energy drawn from the main switch of the house by charging station and other household appliances is measured with the help of this current transformer installed to the main power line. The charging station regulates the charging power of the electric vehicle according to the load on main switch of the house.

To make the related installation, below steps should be followed:

- Slide Switch (SW3) on the power board (21ACPW01) shown in figure-1 should be in position 1 or 2.
- Cabling from external CT's and the "embedded power optimizer module" (21PO01) inside the EV Charger should be done as shown in figure-3.

  Note: If the installation is monophase, external current transformer should be connected to CT1 connector on the embedded power optimizer module.
- The Slide switch (SW2) on the "21PO01" should be adjusted as shown in figure-3 and table-1 or table 2.

Three Phase:

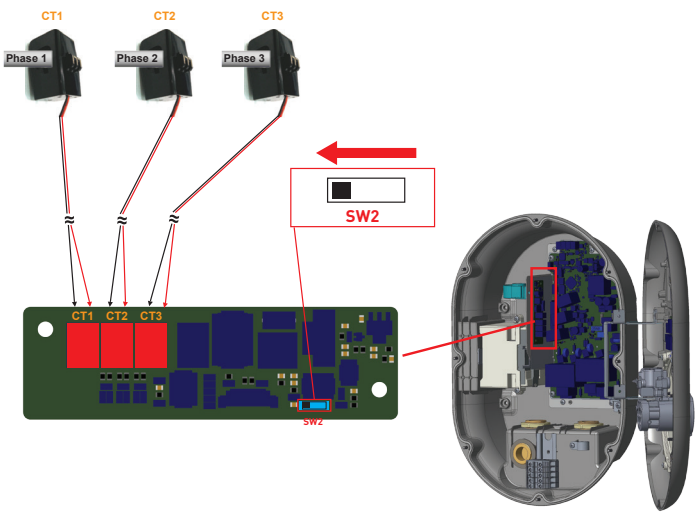


Figure-3

Single Phase:

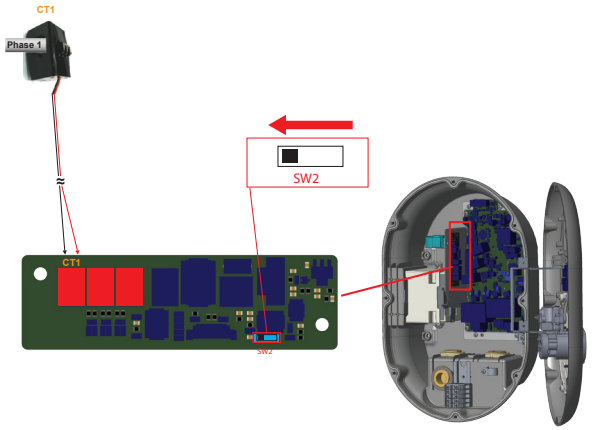
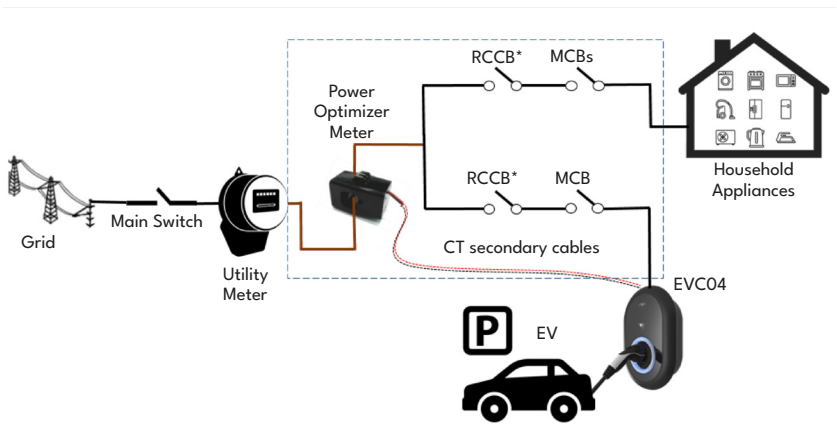


Figure-3

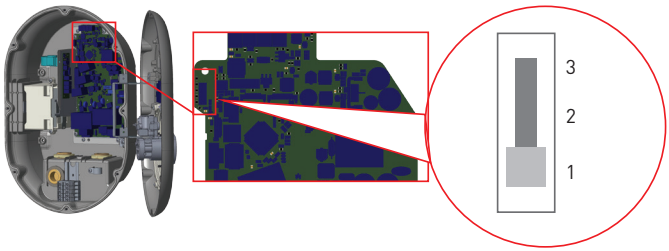
*This figure is valid for variants that do not have an integrated RCCB. If the charging station has an integrated RCCB, there is no need to add an additional RCCB in the power line.

The power optimizer with external CT should be placed as shown in the figure below.

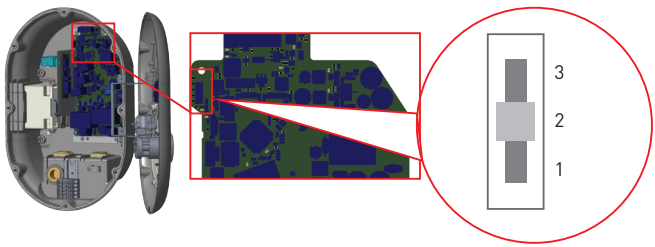


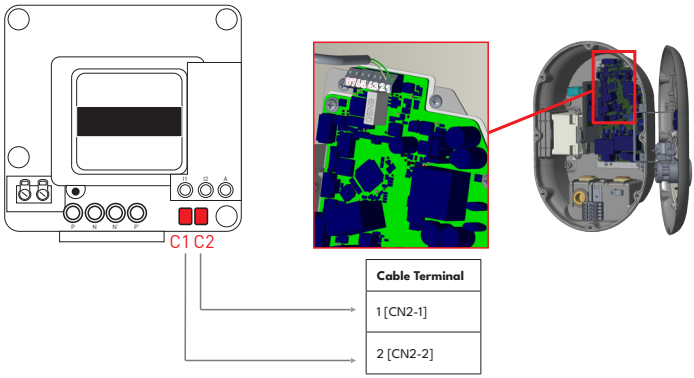
6.2.7 - MODE SELECTION SWITCH SETTINGS

This charging station has 3 operating modes. You need to make switch settings on the motherboard as shown in the figure below to make the configurations below:



- Operating Mode 1 (Standard Load): This mode is the factory default configuration. When this mode is selected, the charging station can charge continuously and at full power (no dynamic charge management). In this mode, “Conditional Input 1” can be used as the potential free on/off functionality.
- Operating Mode 2 (Delayed): For this mode, the slide switch shown in Figure below should be positioned as 2. When this mode is selected, the charging station supports signaling input “C1-C2 Peak/Off-Peak” and reacts accordingly for the Peak/Off-Peak load. The “Dry Contact Input 1” is used as the Linky meter’s C1-C2 dry contact signal, as shown in Figure below. To perform the corresponding installation, follow the steps below.
  1. The slide switch on the control panel shown in the figure below should be positioned at
  2. The wiring of the Linky meter and the control board inside the EV charger must be carried out as shown in the figure below.





• Operating mode 3 (dynamic load of TIC) (Optional)

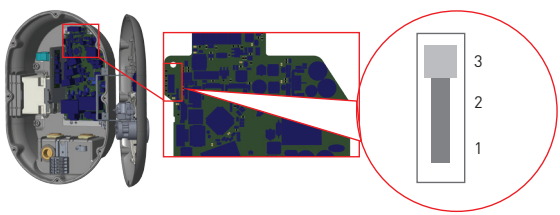
In this operating mode, the charging station is connected to the TIC (Customer Remote Information) output of the Linky meter. This allows dynamic charging of your vehicle by adapting the power delivered by the terminal according to the electricity consumption in your home.

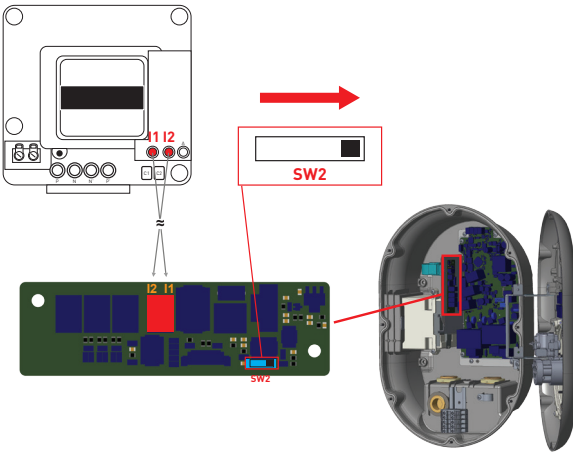
Depending on your subscription, the HP/HC information is transmitted via the TIC.

To select this mode, the slide switch SW3 must be positioned on 3.

You must also connect the I1 and I2 terminals of your Linky meter to the I1 and I2 terminals of the charging station's communication card.

Switch SW2 must be positioned as in the figure below.





The Summary Table of Operating Modes

Mode selector switch position	Operating mode	CN2 contact functionality (1-2)	Dynamic load management on the power optimization unit
1	Permanent	**Activate/deactivate charging point** Contact closed: Charge point activated Contact open: Charging point deactivated	Supported
2	Prices for peak hours / off-peak hours (postponed pricing)	**Input C1-C2** Closed contact: Off-peak hours Contact Open: Peak Hours	Supported
3	TIC (Dynamic Load)	**Activate/deactivate charging point** Contact closed: Charge point activated Contact open: Charging point deactivated	Non supported

Table of behavior of the load points according to the dry contact input1

		Dry contact input 1 Toggle switch activation	
		0	**1**
Position mode of operation	**1 - Standard**	**Normal demeanor**	Contact closed: Charge point activated Contact open: Charging point deactivated
	2 – Peak hours/ Off-peak hours	Closed contact: Off-peak hours Open Contact: Rush Hours	
	3 - TIC	**Attitude TIC**	Contact open: Charging point deactivated Closed Contact: TIC Attitude

6.2.8 - BUILT-IN TIC RECEIVER / POWER OPTIMIZATION MODULE (OPTIONAL)

For product variants with a TIC signal receiver (SR) / power optimizer (PO) module, the charging station is able to receive the TIC signal from Linky meters. It can also be used with optional clamp-type current transformers, sold separately as an accessory.

To use the charging station in TIC and PO mode, the DIP switch on the TIC SR /PO module must be set as shown in the table below.

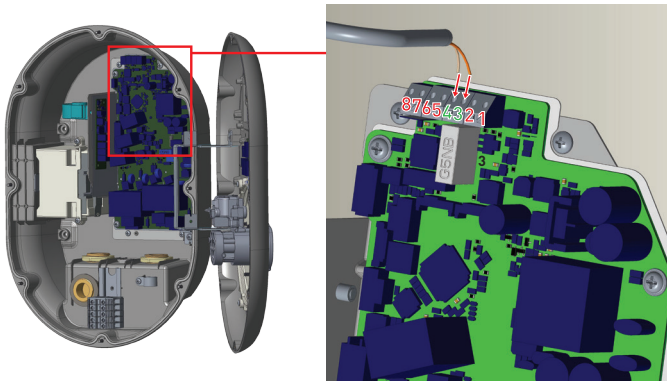
Mode	**Description**	**Figure**
TIC	Slide Switch Right Position	
Power optimization by external CT	Slide Switch Left Position	

6.2.9 - LOAD SHEDDING

This charging station supports load shedding, which immediately reduces the charging current in case of limited supply. Load shedding trigger is a dry contact signal that must be supplied externally.

The charging current drops to 8A when load shedding is activated. The charging operation resumes with the maximum available current when load shedding is deactivated.

You can connect the potential free load shedding signal as shown below. See Figure below, table below.



Cable Terminal	Inlet
3	Load Shedding Inlet +
4	Load Shedding Inlet-

Load Shedding Inlet Status	Behaviour
Open Contact	Charging at maximum current available
Closed Contact	Charging at minimum current (8A)

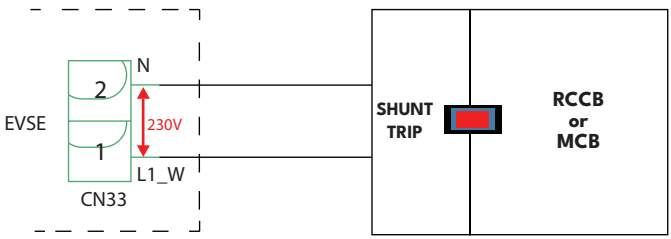
6.2.10 - MONITORING WELDED RELAY CONTACT FAILURES

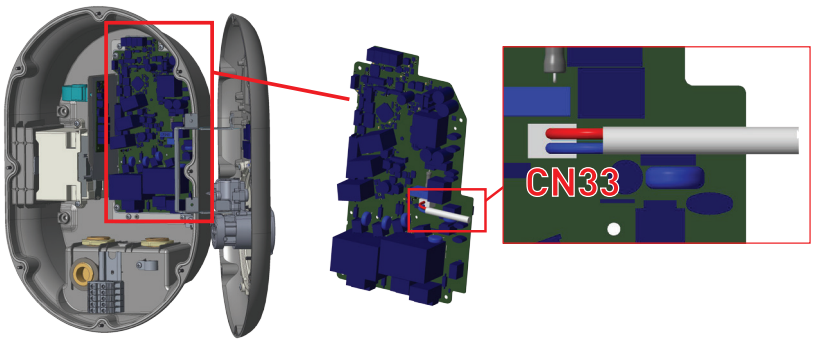
The EVC04 EV Charging station has welded contactor detection function according to the requirements of IEC 61851-1 and EV / ZE Ready and welded contactor information is provided as a contactor welded output signal from the control panel. CN33 connector outlet terminals should be used to detect welded contact failures in relays.

If there is a welded contact in the relays, the CN33 connector outlet will be 230V AC. The outlet with 230V AC must be connected to a shunt trigger for RCCB triggering as shown in Figure below. The cabling must be carried out as shown in Figure below.

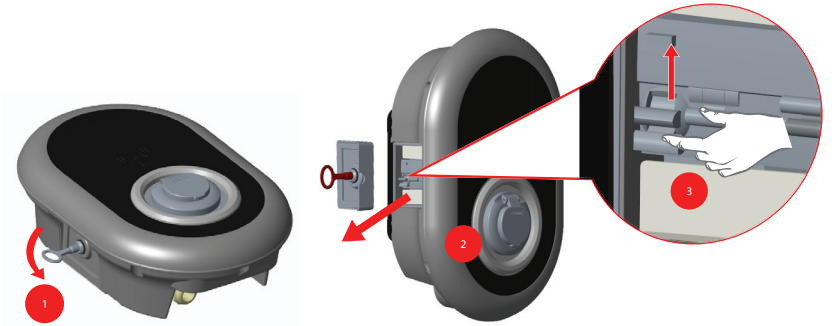
The socket (CN33) terminals must be connected to a shunt trigger module. The shunt trigger module is mechanically connected to the RCCB (or MCB) in the fuse box of the charging station.

The circuit block diagram that should be used in the fuse box of the charging station is shown below.





6.3 - OPENING THE RCD COVER (Optional)



The residual current device can be accessed by opening the lock on the side cover as in Figure below. Insert the triangle key into the lock of the side cover and turn the key 90 degrees counter clockwise.

VESTEL

MOBILITY

CE