

INSTALLATION & OPERATION MANUAL



ROLEC

EVO

Intelligent EV charging unit



UK
Manufacturer

Contents

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1 About this document

Contents

- Chargepoint installation and commissioning instructions.
- Instructions for using the chargepoint safety.
- Compliance information.
- Suggested inspection and testing.

Target group

• Operators and installers.

Installation must only be performed by someone who is properly qualified and competent to do so in accordance with the current legislation applicable in the geographical region of the installation.

Rolec Services Ltd cannot accept any responsibility for improper installation or any problems arising from improper installation.

Language

The original instructions of this document are in English (EN-GB). All other languages are translations of the original instructions.

Using this document

When using this document the reader should:

- Know the structure and contents of the whole document.
- Take special care to understand all safety precautions found in Chapter 3.
- Install the product according to the installation instructions.
- Refer to this document if any problems are encountered.

Illustrations

Illustrations in this document show a typical set-up for reference.

Product Support

- Updates to this manual will be made available on the Rolec website at www.rolecserv.com/downloads-ev-charging
- Check the document date, and the Version and Revision number shown at the end of the Document Code (V01-R0, V01-R2, V02-R0, etc).
- For installation assistance and advice, contact your preferred electrical installer.

Abbreviations

| | |
|------|--------------------------------|
| AC | Alternating Current |
| DC | Direct Current |
| EMC | Electromagnetic Compatibility |
| ETH | Ethernet |
| EV | Electric Vehicle |
| FIT | Feed-in-Tariff |
| OCPD | Open Charge Point Protocol |
| PE | Protective Earth |
| RFID | Radio-frequency Identification |
| NFC | Near Field Communication |
| CT | Current Transformer |

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Important symbols



Danger

Failure to obey instructions can result in injury or death.



Warning

Failure to obey instructions can result in injury.



Caution

Failure to obey instructions can result in damage to the chargepoint or to property.

2 Product overview

Product description

The chargepoint offers smart charging solutions that can be adjusted to your needs. It supports remote charging by connecting to the internet via Wi-Fi or Ethernet, and short-range control via Bluetooth.

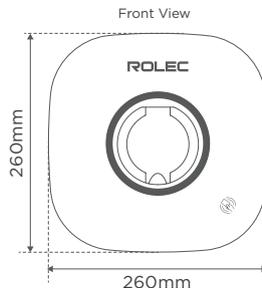
Intended use

The chargepoint is intended for indoor or outdoor AC EV charging. To charge a vehicle, an approved Type 2 cable following the standard IEC 62196 or IEC 62893 must be used.

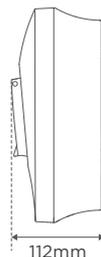
Installation

- Ensure the chargepoint complies with the properties of the electrical grid and your vehicle.
- The chargepoint can only be installed by a licensed electrician and the installation must be in accordance with national and local regulations.
- Follow the instructions described in this document to install and use the chargepoint.

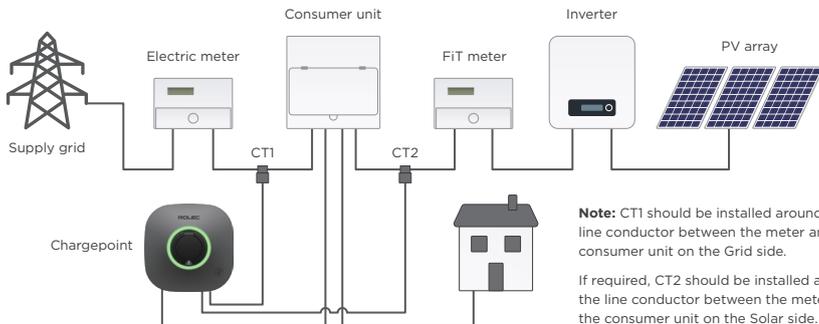
Dimensions



Side View



System overview



Integrated PME fault detection

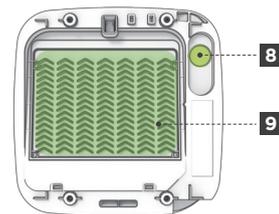
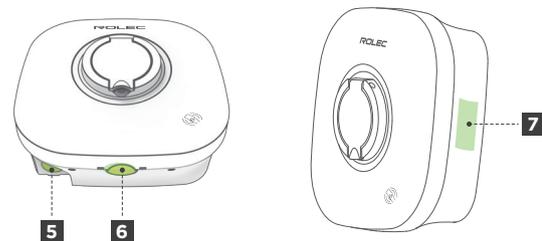
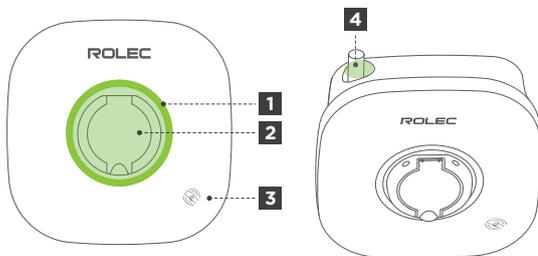
Safety is at the heart of the design. It features an integrated PME fault detection device to ensure the safety of you and your EV.

Following the relevant provisions of BS 7671 722.411.4, once a broken PEN line is detected, all relays on the circuit are disconnected to prevent electric shock.

Load Balancing

Additional RJ45 for Load Balancing (CT1 for Grid, CT2 for Solar, one pair reserved, one pair RS485).

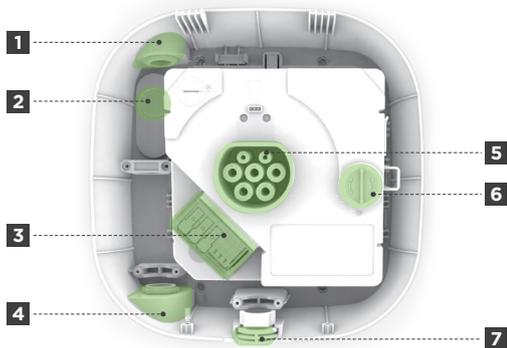
Overview of EVO Chargepoint (exterior)



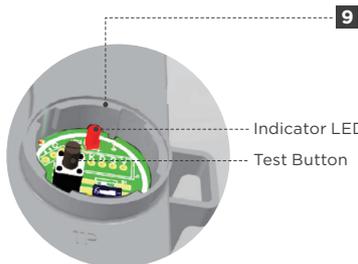
- 1 LED indicator
- 2 Output socket
- 3 RFID/NFC
- 4 Top cable entry
- 5 Bottom cable entry
- 6 ETH & CT/485 entry (optional)
- 7 Product label
- 8 Rear cable entry
- 9 Aluminium heat sink

Note 1: Choose any of the three entry points, depending on your chargepoint's placement. Do NOT remove the sealing plug in the unused entry.

Overview of EVO Chargepoint (interior)



- 1 Top cable entry
- 2 Rear cable entry
- 3 Wiring terminal
- 4 Bottom cable entry
- 5 Output socket
- 6 TP Cover
- 7 ETH & CT/485 entry (optional)
- 8 ETH and CT/485 port
- 9 RCD test button with LED



Note 1: Choose any of the three entry points, depending on your chargepoint's placement. Do NOT remove the sealing plug in the unused entry.

Specification

| | |
|-------------------------------------|--|
| Product Code | ROLEC5011 |
| Charging Output | Up to 7.4kW |
| Output Current | 6-32A (adjustable) |
| Input Supply | 32A Single Phase 230V AC ($\pm 10\%$) 50/60Hz |
| Grounding System Support | TN |
| Charge Protocol | Mode 3 (IEC 61851-1) |
| Connection Type | Type 2 (IEC 62196) charging socket with servo motor lock |
| Built-in Energy Metering | >98% accuracy |
| Standby Power Consumption | <5W |
| Configuration | Rolec Connect App |
| User Control | Rolec EVO App (or any OCPP 1.6 compliant back-office) |
| Authentication | RFID/NFC reader, app |
| Charging Status | Dynamic LED ring indicates for charging status |
| Cloud Connection | Wi-Fi or Ethernet |
| Local Connection | Bluetooth 5 (LE) |
| OCPP | OCPP 1.6J |
| Remote Diagnosis | Supported |
| Remote Upgrade | Supported |
| Built-in Protection | AC 30mA Type-A and DC 6mA (with test button) |
| Required External Protection | Over current protection - A suitably rated MCB or 30mA Type A RCBO is to be installed at source (dependent on cable type and/or route) Surge Protection - May be required depending on the installation |
| PME Fault Detection | Supported |
| Electrical Protection | Over/undervoltage protection, overloading protection, short-circuit protection, surge protection, grounding protection, CP abnormality protection, temperature protection. |
| Overvoltage Category | III |

Specification

| | |
|------------------------------|---|
| Insulation Class | I |
| Fire Classification | UL94 V-0 |
| IP Rating | IP54 |
| Impact Resistance | IK10 |
| Dimensions | 260mm x 260mm x 112mm (W x H x D) |
| Weight | <3kg |
| Materials | Enclosure - PC - ABS Heat Sink - Aluminium alloy |
| Installation Type | Wall-mounted/Post-mounted |
| Operating Temperature | -30°C to +50°C |
| Storage Temperature | -40°C to +85°C |
| Altitude Restriction | <2000m |
| Certification | 62368-1, CB, UKCA, RoHS |

Radio power statement

| Transmission type | Frequency | Maximum output power |
|-------------------|------------------------------------|----------------------|
| Bluetooth 5 (LE) | 2402-2480MHz | <20dBm |
| Wi-Fi 6 | 802.11b/g/n/ax (2.4GHz) | <20dBm |
| RFID | ISO/IEC 14443 A (Type A, 13.56MHz) | <6dBuA/m @ 3m |

LED indicators

| LED indicator | Lighting effect | Description |
|--|---|--|
|  | Rotating rainbow-colored light for 5s | Booting |
|  | Continuous orange light | Scheduling |
|  | Blue light flashes | Standby (idle) - Status available |
|  | Red light flashes | User authentication unsuccessful |
|  | Green light flashes | Waiting for plug to connect - Status Pending |
|  | Green light flashes with upper $\frac{1}{4}$ continuous green light | Plug connecting |
|  | Green light flashes with upper half continuous green light | Random delay |
|  | Green light flashes with upper $\frac{3}{4}$ continuous green light | Waiting for response from EV |
|  | Continuous green light | Charging |
|  | Continuous blue light | Charging paused (Suspended EV / EVSE) |
|  | Rotating yellow light | Downloading firmware update |
|  | Yellow light flashes | Installing firmware update |
|  | Blue flashes with upper $\frac{1}{4}$ continuous purple light | Successfully connected to the network |

LED indicators

| LED indicator | Lighting effect | Description |
|--|--|--|
|  | Red flashes with upper ¼ continuous purple light | Disconnected from the network |
|  | Blue flashes with upper ¼ continuous blue light | Bluetooth connected successfully |
|  | Yellow flashes with upper ¼ continuous blue light | Bluetooth disconnected |
|  | Blue flashes with upper ¼ continuous cyan light | Energy management connected successfully |
|  | Yellow flashes with upper ¼ continuous cyan light | Energy management disconnected |
|  | Red flashes once periodically with upper ¼ continuous red light | Abnormal communication with EV |
|  | Red flashes twice periodically with upper ¼ continuous red light | Overvoltage fault |
|  | Red flashes 3 times periodically with upper ¼ continuous red light | Over-current fault |
|  | Red flashes 4 times periodically with upper ¼ continuous red light | Under-voltage fault |
|  | Red flashes 5 times periodically with upper ¼ continuous red light | Under-current fault |
|  | Red flashes once periodically with right ¼ continuous red light | Main relay fault |
|  | Red flashes twice periodically with right ¼ continuous red light | Over-heating fault |
|  | Red flashes 3 times periodically with right ¼ continuous red light | Leakage fault |

LED indicators

| LED indicator | Lighting effect | Description |
|---|---|--|
|  | Red flashes 4 times periodically with right ¼ continuous red light | Grounding fault |
|  | Red flashes 5 times periodically with right ¼ continuous red light | RCD device fault |
|  | Red flashes once periodically with bottom ¼ continuous red light | Metering communication failure |
|  | Red flashes 5 times periodically with bottom ¼ continuous red light | RFID communication failure |
|  | Red flashes twice periodically with left ¼ continuous red light | Temperature sensor fault |
|  | Red flashes 3 times periodically with left ¼ continuous red light | Auxiliary relay fault |
|  | Red flashes 4 times periodically with left ¼ continuous red light | Power supply is incorrectly configured |
|  | Red flashes 5 times periodically with left ¼ continuous red light | Equipment power off |
|  | Red flashes once periodically with upper half continuous red light | Servo fault |
|  | Red flashes twice periodically with upper half continuous red light | PE over-current fault |
|  | Red flashes 3 times periodically with upper half continuous red light | PME fault |
|  | Red flashes 4 times periodically with upper half continuous red light | Tamper warning |
|  | Red flashes 5 times periodically with upper half continuous red light | Abnormal charging connector connection |



3 Safety instructions

General safety instructions

- Read all the instructions before using this product.
- The information provided in this manual must **ONLY** be used with the ROLEC5011.
- The content of this manual may be updated by the manufacturer as required.
- Do **NOT** use the equipment for anything other than its intended purpose.
- Do **NOT** attempt to repair or modify the equipment unless specifically instructed to do so by the manufacturer.
- To maintain electrical safety, the body enclosure of the product (access covers) must be secured in their correct location using the supplied fasteners and the seal must be sufficient to maintain the IP rating of the enclosure.
- Fasteners used to mount the product in its working location must be sufficient for the task and the specific mounting point.
- Damage to the product may render it unsafe. The product must be electrically isolated and **NOT** used until appropriate remedial action has been performed.
- The chargepoint must be grounded through a permanent wiring system or an equipment grounding conductor.
- Do not use the chargepoint if it is defective, appears cracked, worn, broken, or otherwise damaged, or fails to operate.
- Turn the input power off at the circuit breaker before installing or cleaning the chargepoint.
- Never spray water or any other liquid directly at the chargepoint. Never spray any liquid onto the charging socket and ensure the charging socket cover is closed when not in use.
- Use of the chargepoint may affect or impair the operation of any medical or implantable electronic devices, such as cardiac pacemaker or cardioverter defibrillator. Check with your medical device manufacturer concerning the possible effects.
- Do not touch the chargepoint's end terminals by hand or sharp metallic objects such as wire, tools, or needles.
- Do not operate the chargepoint in temperatures outside its operating range of -30°C to +50°C.

Liability

- Rolec will not be liable for any damages, losses, costs or expenses incurred as a result of not following this manual.
- Operators must ensure their network is secure. Rolec is not liable for damages or losses caused by unsecured networks.

Symbols on the chargepoint



General risk



Hazardous voltage that gives risk of electrocution



PE



Read the User Manual to familiarise yourself with the equipment.



Waste from electrical and electronic equipment



UKCA certification mark



TÜV certification mark

RoHS

RoHS certification mark



Charging Identifier

Requirements of installer

- Installers must read and understand the content of this manual before installation and/or use of the product.
- Installation must only be performed by someone who is properly qualified and competent to do so in accordance with the current legislation applicable in the geographical region of the installation.

Safety instructions for use

In the case of the following scenarios, immediately stop using the chargepoint and contact the manufacturer:

- The chargepoint's casing is damaged.
- The charging connector is damaged.
- The chargepoint has been struck by lightning.
- There was an accident or a fire at or near the chargepoint.
- Water has entered the chargepoint.

Waste disposal

Rolec Services Ltd are a registered manufacturer (WEE/AG3499TY) within the WEEE Recycling Scheme, allowing its products at the end of their life, to be processed by an appropriate local service provider.

4 Product conformity

Regulations & standards:

- 2014/53/EU
- 2011/65/EU
- SI 2021/1467
- UK Radio Equipment Regulations 2017
- UK Electrical Equipment (Safety) Regulations 2016
- UK Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012
- IEC 62368-1
- CB certification
- UKCA certification
- TÜV certification
- RoHS certification

Relevant standard

| | |
|---------|--|
| LVD | (BS) EN IEC 61851-1:2019 IEC 62955:2018 |
| RED/EMC | (BS) EN IEC 61851-21-2:2021 (BS) EN IEC 61000-6-1:2019 (BS) EN IEC 61000-6-3:2021 EN 300 328V2.2.2:2019 EN 300 330V2.1.1:2017 EN 301 489-1V2.2.3:2019 EN 301 489-3 V2.1.1:2019 EN 301 489-17 V3.2.4:2020 EN 301 489-52 V1.2.1:2021 EN301 908-1V15.1.1:2021 EN 301 908-13 V13.1.1.:2019 EN IEC 62311:2020 |
| RoHS | IEC 62321-2:2021 IEC 62321-3-1:2013 IEC 62321-4:2013+AMD1:2017 IEC 62321-5:2013 IEC 62321-6:2015 IEC 62321-7-1:2015 IEC 62321-7-2:2017 IEC 62321-8:2017 |

5 Installation steps

Scan here to watch the installation guide



bit.ly/EVO-Install

Pre-installation instructions



Warning

Installation must only be performed by someone who is properly qualified and competent to do the work in accordance with the current legislation in force in the geographical location of the installation.

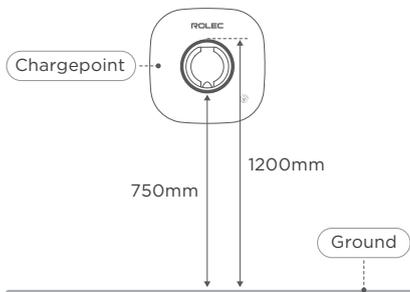
Installation site specification

| Specification | Descriptions |
|---------------------|--|
| Wall thickness | Min. 70mm |
| Wall weight holding | Please refer to specification to check the weight of the product. |
| Wall material | Flat and secure surface for the chargepoint to be mounted to. The best material to mount the chargepoint to is a brick or concrete wall. |

Electrical code

- Make sure you have a suitable AC power supply. (Please refer to specification for specific power supply requirements.)
- Make sure you have a suitable upstream circuit breaker (Generally it is 1.25X of the rated current, recommended using 40A circuit breaker).
- The chargepoint has AC 30mA Type-A & DC 6mA residual current protection integrated. A suitably rated MCB or 30mA Type A RCBO is to be installed at source (dependent on cable type and/or route). Surge Protection may be required depending on the installation.
- Do not use adapters, conversion adapters or extension cords with the product.

Installation height



In accordance with BS7671:2018 (IET Wiring Regulations)

Height for accessibility

If needing to meet Electric Vehicles Accessible Charging Specification - PAS 1899:2022

- Maximum height to the centre of the socket = 950mm
- Minimum height to the centre of the socket = 800mm

Wireless connectivity



Ensure that the place of installation has Wi-Fi coverage and that the customer provides the network name (SSID) and password.



For Bluetooth connectivity, ensure that the smart phone is within the chargepoint's range.

Input cable specifications

| Specification | Descriptions |
|-------------------------|--|
| Cable Outer Diameter | 10-20mm |
| Conductor Cross Section | 6mm ² |
| Cable Length | Selected according to the actual distance required for on-site wiring. |

Note: The above specifications are typical, please consult your local electrical regulations for the correct selection based on the environment, conductor type and rating of the chargepoint.

Checking the box

Please unpack the product before you are ready to install it to ensure that it is complete with all accessories. If there are any items missing, please contact the seller immediately.



Chargepoint x1



Manual x1



RFID card x2



DLB CT with 10m wire x1



TX10 head
Screwdriver x1



Strain relief x2



TX10 Torx screw
ST2.9x12mm x4



Sealing plug x2



Reducer
M25 to M20 x1



Split gland x1



Spanner x1



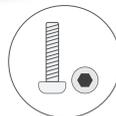
TX25 Wall screw
ST5.0x40mm x4



Wall anchor
Ø8xØ6x40mm x4



TX10 Torx screw
M3x16mm x2



Preparing installation tools

During the installation process, you may need to use the following tools, please prepare in advance.



Tape measure



Pencil



Drill



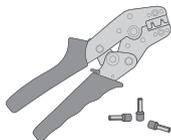
Wire cutters



Scissors



Wire strippers



Crimper and terminal



TX10 TX25

Torque screwdriver



25mm Hole saw

Note: The tools listed above are not included in the package.

Cable handling



Danger

Make sure the electrical supply is isolated before handling cables.



Warning

Perform insulation resistance tests BEFORE connecting the cable to the chargepoint. The high voltages may damage sensitive components.



Stripping length B depends on the cable entry you choose. The above diagram shows a range recommended by the manufacturer, choose the optimum length according to the individual requirements of your set up.

AC input cable entry options

Option 1: Cable entry on the bottom of the chargepoint.

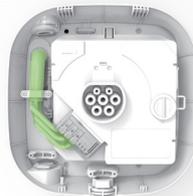


Option 2: Cable entry on the top of the chargepoint.

Note: This option is recommended for indoor use, if you want to use this option outdoors, ensure the entry is sealed and watertight.



Option 3: Cable entry on the back of the chargepoint.



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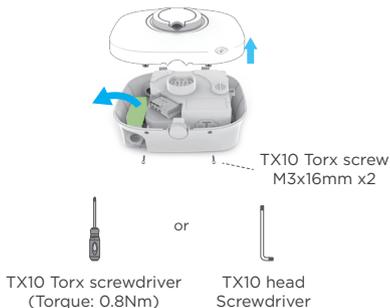
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Installation

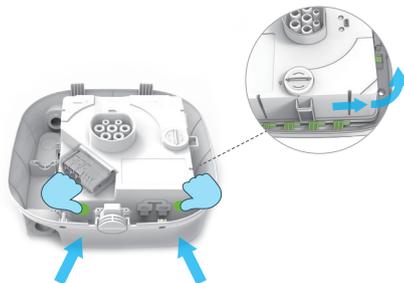
1 Disassemble the chargepoint

1.1 Remove the 2x TX10 screws on the bottom of the charger and remove the front cover of the charger.



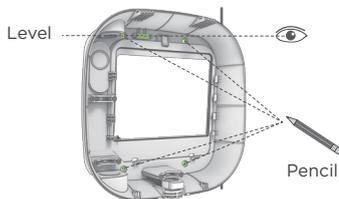
1.2 Slide up the charging module out the charging module forcefully to detached from the clip as shown in the figure below.

Note: Considerable sliding force may be required to slide out the charging module.

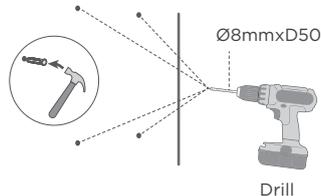


2 Drill the holes in the wall

2.1 Position the chargepoint on the wall, using the level on the back of the chargepoint to make sure it is straight. Mark the 4 mounting holes with a pencil.



2.2 Using the 4 marks you just made, use an electric drill to drill 4 holes that are 8mm diameter and 50mm deep. Then use a hammer to install the wall anchors into the holes.



3 Choose which cable entry is most suitable and feed the AC input cable

3.1 Choose the most suitable cable entry for your requirements, either from the top, bottom or back cable entry. Then trim the sealing plug to match the diameter of the cable and feed it to the chosen entry.

Back feeding

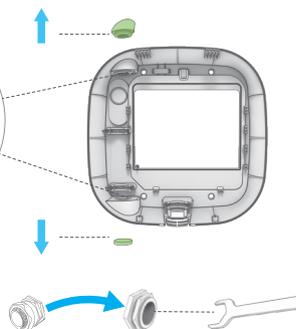
Drill the hole with a 25mm Hole saw on the marked location.



Note: If you want to use the M20 SWA copper gland for cable feeding. Please use the M25 to M20 reducer in the accessories instead of the sealing plug, then use a spanner to secure it.

Top or bottom feeding

Remove the waterproof plug.



3.2 Feed the AC input cable into the trimmed sealing plug entry.



4 Fix the back housing

4.1 Use the 4 ST5.0x40mm screws included in the package to fix the chargepoint at the pre-confirmed position on the wall.



Note: Suggested installation torque 3Nm+/-10% (different materials of walls have different torques), to avoid over-tightening and cracking the casing.

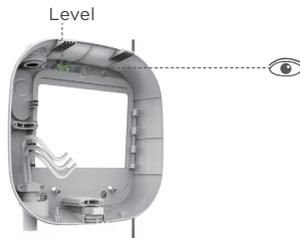
5 Fix the charging module

5.1 Put the charging module into the back housing, and slide it down slightly until it is locked into position within the housing properly (you will hear a click).



TX10 Torx screw
ST2.9x12mm x4

4.2 Using the level on the back of the chargepoint housing, ensure it has been mounted horizontally.

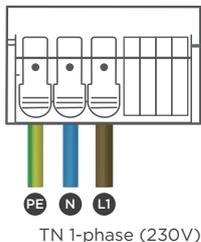


5.2 Connect the power cable to the terminals and tighten the screws to crimp the terminals.

Note: For wiring, please refer to wiring requirements.

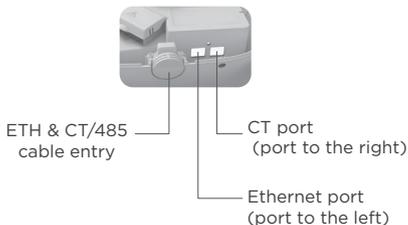


Wiring



CT and ETH connection

ETH & CT/485 cable entry indicating



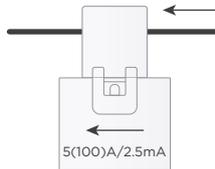
Note 1: If using EV Ultra CAT5 cable, ensure connections are made to DLB: 1 & 2 and Solar: 3 & 6.

Note 2: If 2x CTs are required, an additional kit is available.

Product Code: ACSR5011

Description: EVO Single Phase Solar CT Clamp Kit

CT direction indication



The CT clamp should be positioned around the line conductor. The arrow shown on the CT clamp must point in the direction of electrical current flow.

No other cables should pass through the CT clamp.

Refer to the system overview illustration on page 6 for placement of the CT clamp.

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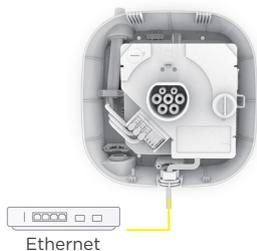
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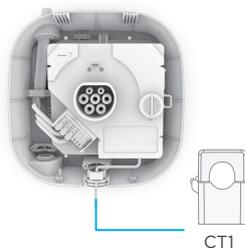
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1. Ethernet connection only:

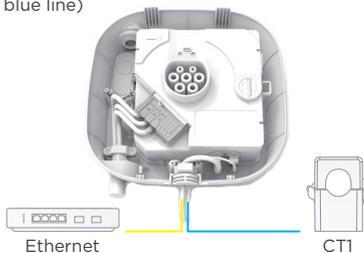
Feed the ethernet cable straight in from the centre bottom cable entry.

**2. Load balancing CT only:**

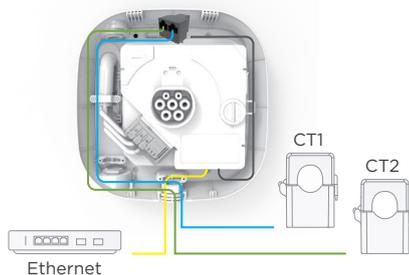
Through the centre bottom cable entry to the right RJ45 port.

**3. Ethernet connection and load balancing CT:**

Feed in both the ethernet and load balancing CT cable straight in from the centre bottom cable entry to the ethernet port (as indicated by yellow line) and CT port (as indicated by blue line)

**4. Ethernet connection and 2 CTs for load balancing and solar:**

- Use centre bottom cable entry for routing the 2 CTs into the 2-way RJ45 adapter as indicated by blue and green lines.
- Connect the adapter to the CT port by routing as indicated by dark gray line.
- Feed the ethernet cable straight into the ethernet port as indicated by the yellow line.



Note 1: CT1 should be installed around the live cable between the meter and the consumer unit on the Grid side.

If required, CT2 should be installed around the live cable between the meter and the consumer unit on the Solar side.

Note 2: When using the central bottom cable entry, please replace the plug with the split gland.

6 Secure the front panel and finish the installation

6.1 Remove Pogo pin protective sticker on the charging module.



Caution



Pogo pin protective sticker



6.2 Place the front cover on the chargepoint.



6.3 Insert two screws into the holes on the bottom of the chargepoint to finish the installation.



TX10 Torx screw
M3x16mm x2



TX10 Torx screwdriver
(Torque: 0.8Nm)

or



TX10 head
Screwdriver

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6 Commissioning instructions

Prepare for commissioning

- Before commissioning, make sure that the safety devices have been installed. This includes but is not limited to: circuit breakers, leakage protection devices and other waterproofing and protective precautions.
- Please make sure that the chargepoint is installed in strict accordance with the requirements of this document.



Danger

Be careful of electric shock.

Turn the power on

Connect the chargepoint's circuit breaker to the power supply. The LED indicator will light up. If the LED indicator fails to light up, check the power supply and electrical connection.

Preparing Rolec Connect App

Download and install Rolec Connect App on Google Play or Apple App Store.



GET IT ON
Google Play



Download on the
App Store

Initial configuration by app



- 1 Select Evo from the device list and follow the on-screen instructions to configure.
- 2 Go to the settings page.
- 3 Update the firmware.
- 4 Initiate a charging test.

Note 1: During chargepoint commissioning, ensure your mobile phone's Bluetooth function is turned on and the app is online.

Note 2: When you connect the chargepoint via the Roolec Connect App, enter the PIN code found on the device's charging module or on the last page of this manual. If the chargepoint has already been linked previously by another party, you will also need to obtain authorisation from the chargepoint owner's Roolec EVO App.

Note 3: To perform a firmware update, the chargepoint requires an internet connection.

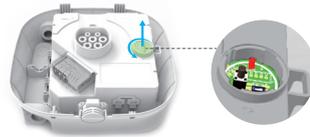
Note 4: Additional tests are required according to local regulations.

RCD test button with LED

To perform this test, tamper must be disabled via the Roolec Connect app.

Open the lid of the charging module as shown below.

Trigger the leakage protection module to conduct leakage self-test by tapping the button, the test result will be displayed by the LED indicator.



Operation instruction:

- Disable the tamper function from the Roolec Connect App.
- Open the top cover.
- Plug in the charger simulator and keep the charger in charging mode.
- Start a test charge in the Roolec Connect App.
- Open the TP cover.
- Press the test button, the test indicator will light up.
- The charging simulator will disconnect the output from the charger and the indicator light will turn off to indicate that the RCD function has been successfully tested.
- Close TP cover.
- Enable the tamper function in the Roolec Connect App.



Danger

- Disabling the earth conductor detection may only be used once you have confirmed that the electrical installation and earthing have been correctly connected and that inadequacies in the grid have resulted in the chargepoint detecting an irregularity.
- The dip switch is intended solely for future development purposes and must not be adjusted. Altering its position may result in unintended consequences or potential damage.

7 Operation instructions

Scan here to watch the user quick start guide



bit.ly/EVO-Quick-Start

Prepare for operation

- Before operation, make sure that the protective device for the chargepoint is installed. This includes the following items but not limited to circuit breakers, leakage protection devices and other waterproof and protective devices.
- Make sure that the chargepoint is installed in strict accordance with the requirements of this document.
- For chargepoints that are not new, make sure that any required maintenance to the chargepoint has been done.
- If the operator is a third party, please ensure they are familiar with the instructions and safety precautions in this document.

Preparing Rolec EVO App

Download and install the Rolec EVO App from the Google Play or Apple App Store.



Please be careful of electric shock.

Turn on the power

Connect the circuit breaker of the chargepoint to supply power. The LED indicator will light up, if it does not light up, check the power supply and electrical connection.

If the LED indicator displays a fault, follow the troubleshooting tips in Section 8 of the manual. If you have followed the above steps and are still unable to solve the issue, contact your preferred electrical installer.

Device pairing



1 Add device.



2 Scan the SN barcode on the chargepoint or select the chargepoint's Bluetooth to connect to the device.



3 Enter the PIN code found on the charging module and on the last page of this user manual.



4 Connection successful.



Note 1: When linking the chargepoint, ensure your mobile phone's Bluetooth function is turned on and the app is online.

Note 2: Control your charging from the app including stopping and starting charge, scheduling charging, RFID authentication and auto start (depending on your configuration).

Note 3: If your vehicle does not charge, make sure it is turned on.



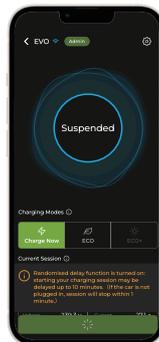
Caution

During the charging session, do not disconnect the EV charging cable from your EV. This may cause damage to the EV connector.

How to start & stop a charge



- 1 Tap “Start Now” button to start charging. You can also create and manage charging schedules, charging will start and stop at the times that you define.



- 2 Please make sure charging cable is connected to your vehicle before charging begins. If not, you can plug your vehicle in and start charging within 1 minute.

Please note: if randomised delay is turned on, starting your charging session may be delayed up to 10 minutes.



- 3 The main screen of the App will display realtime charging data, including total energy delivered, charging time, charging current, charging voltage, etc...

You can tap the “Stop charging” button to stop charging.



- 4 When charging is completed, the main screen of the App will display total energy delivered and charging time.

How to add an RFID card

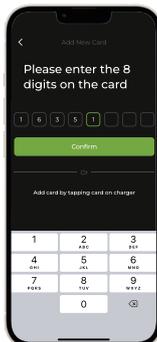


1 There are two ways to add the RFID cards.

- By manually entering the card number.

OR

- By simply tapping the RFID card on the chargepoint.



Manual addition,

- The RFID card number can be manually inputted into the app as shown here.
- Tap on 'confirm' to add the RFID card to the app.



Card tapping,

- Hold the RFID card against the charger's card reader icon on the chargepoint.
- A beep can be heard to indicate the successful addition of the RFID card.



2 Successful pairing,

- Card number gets displayed on the App once it is successfully paired.
- Plug your EV after successfully pairing the RFID card to start the charging session.

8

Troubleshooting

instructions

Troubleshooting table

| Item | Problems | Solutions |
|------|---------------|--|
| 1 | Over-voltage | Use the multimeter to check whether the voltage on the power input is too high. If the result is greater than or equal to 253V, contact your local power grid company. |
| 2 | Under-voltage | Use the multimeter to check whether the voltage on the power input is not sufficient. If the result is less than or equal to 207V, contact your local power grid company. |
| 3 | Over-heating | Check whether the EV charging cable is securely connected. Check the incoming cable and circuit comply with the power supply. Ensure the operating temperature is within the specified range on the product label. When the chargepoint has cooled down sufficiently, charging will commence again automatically. |
| 4 | Ground fault | Make sure the chargepoint is properly grounded. |
| 5 | Power failure | Make sure the circuit breaker switch is on. |

| Item | Problems | Solutions |
|------|---------------------------------|--|
| 6 | Residual current detected | Unplug the vehicle and plug in again. If the problem persists, contact customer support. |
| 7 | Bluetooth communication failure | Make sure Bluetooth is enabled on your mobile device and the chargepoint is powered on. Forget the chargepoint in the Bluetooth settings on your mobile device and pair the chargepoint to your device via Bluetooth again. If the problem persists, contact customer support. |
| 8 | Update failure via Bluetooth | Make sure the chargepoint is in idle status. Make sure the Bluetooth connection is working properly. If the problem persists, contact customer support. |
| 9 | Internet connection fails | Try to connect another device to the same internet, verifying the internet connection is working properly. If the problem persists, contact customer support. |

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Troubleshooting instructions

You can find fault information in the “LED Indicators” section in Chapter 2 of this manual and use it to identify the fault. You can also access fault records in the Rolec EVO App.

You can contact Rolec Technical Support via the ‘contact page’ at www.rolecserv.com.



If you are unable to fix the fault using the instructions found above contact your preferred electrical installer. Do not attempt any repairs beyond the scope described in this document. Rolec will not be liable for any damages or losses caused by improper operations under these conditions.

9 Maintenance

suggested inspection & testing

A record of inspection, testing and maintenance must be kept and may be required to support warranty claims.

The following advice does not override regional regulations. Quarterly inspection and testing are recommended for frequent or intensive chargepoint use. Operators may adjust maintenance frequency based on usage patterns but must meet current regulatory requirements at a minimum.

1st and 3rd Quarter

External Visual Inspection:

- Check for physical damage.
- All warning labels present and legible.
- Status indicators are functioning correctly.
- Check the condition of the charging socket, contacts and socket flap.
- Make sure the cable lock is operational.

Internal Visual Inspection:

- Check for physical damage.
- Visual inspection for any heat degradation.
- No foreign bodies or contamination present.

Clean the enclosure.

2nd and 4th Quarter

External Visual Inspection:

- Check for physical damage.
- All warning labels present and legible.
- Status indicators are functioning correctly.
- Check the condition of the charging socket, contacts and socket flap.
- Make sure the cable lock is operational.

Internal Visual Inspection:

- Check for physical damage.
- Visual inspection for any heat degradation.
- No foreign bodies or contamination present.

Electrical:

- Make sure wires/terminals are secure.
- Check Voltage and Polarity.
- Check operation of switchgear.
- Test earth fault loop impedance.
- Test power outlets using a load simulator.

Clean the enclosure.



PIN code label

THIS DOCUMENT CONTAINS INFORMATION THAT IS SUBJECT TO CHANGE WITHOUT NOTICE.
The latest version of this publication can be downloaded at www.rolecserv.com/downloads-ev-charging

Illustrations of the product and user interface are for marketing purposes only.

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EVEM-V01-RO EVO Installation & Operation Manual



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