



AmpCharge EV Charger 7kW Flash Installation Manual Australia

Model: StarCharge Artemis AC Charger
(AC0070EN02600)

This document is used for the installation of the
AmpCharge EV Charger 7kW Flash.

Please note:

A licensed electrician is required to install this device. If
you have any questions, please call **13 14 04**
9am to 6pm, Monday to Friday Sydney Time.

AMPOL

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The information presented in this guide is subject to change without prior notice.

The technical specifications indicated here do not constitute a contractual obligation. In case of any doubt regarding a subject described or if you discover an error in this manual, please contact us.

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2. Safety

2.1 General safety

During the installation and connection of the Charger, it is imperative to comply with the local legal acts and regulations.

- Electric Vehicle Supply Equipment (EVSE) installation must be performed by a licensed electrician.
- EVSE must be installed according to local regulations (*AS/NZS 3000:2018 Electrical Installations* (Australian Wiring Rules)).
- Service / replacement must be performed by a licensed electrician.
- Do not use the EVSE:
 - Near explosives or flammable substances.
 - In or near water.
 - If it is visibly damaged.
- Do not clean the EVSE with running water or a pressure washer.
- Do not change or modify the EVSE unless Ampol has approved it.
- Do not wrap the cables around the EVSE while charging.
- Do not put the connector on the ground. Put it in its holder after charging.
- Only perform activities that are described in this manual and that you are qualified to do.
- Follow the safety rules and accident prevention rules for the EVSE and the area where it is used.
- Make sure the EVSE is used in the environmental conditions that are specified for it. For more information about environmental conditions, refer to section 3.3.6.
- When installing this product, installers must identify all hazards and manage risks as per *AS/NZS 4836 Safe working on or near low-voltage and extra-low voltage electrical installations and equipment*.
- The EVSE is intended for permanent installation and requires electrical connection to the fixed wiring system of a building.
- The EVSE requires only Type A RCD + MCB upstream protection.
- The use of adapters or conversion adapters is not permitted with EVSE.
- The use of cord extensions is not permitted with EVSE.
- Upstream power must be isolated before insertion or removal of the charging cable from the charging unit (only relevant if cable is being swapped out of unit).



2.2 Safety symbols




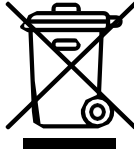


Symbols	Meanings
	Electric hazard: This symbol indicates that there is a danger of electric shock. Failure to pay attention to the procedures, practices or improper implementation may cause injuries or death.
	Caution: This symbol indicates that there is a hazard that could damage the product. Only perform operations with this symbol if you fully understand and meet all of the requirements.
	Tips: This symbol indicates that the information is helpful or provides useful advice. It does not contain any information about danger or harm.
	Garbage disposal: This symbol indicates that the electrical and electronic equipment and their accessories should be disposed of separately from household waste. They can be reused, recycled, or disposed of in a safe and environmentally friendly way.
	Earthed: Must be connected to the building's earthing system during installation to ensure correct operation of various electrical protection features. Once the ground fails or there is no grounding, the EVSE will report fault and stop charging.
	Regulatory Compliance Mark (RCM): This symbol indicates that the electrical and electronic equipment complies with two independent schemes. <ul style="list-style-type: none"> • Electrical Equipment Safety System (EESS) • Australian Communications and Media authority (ACMA) labeling requirements

Table 2.2 Safety symbols

2.3 Disposal

CAUTION: Please observe the local regulations and guidelines regarding disposal of electric appliances and electronic devices.



3. Product overview

3.1 Nameplate

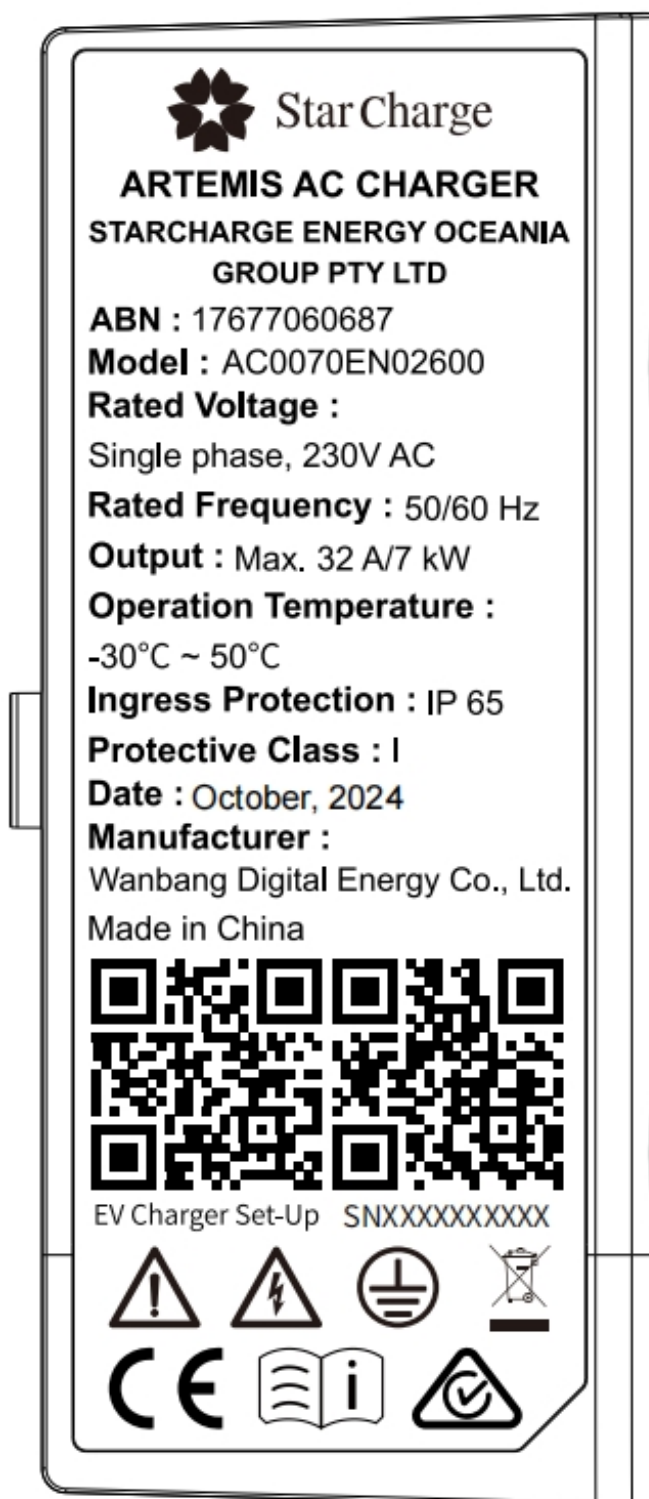


Figure 3-1 Nameplate



3.2 External view

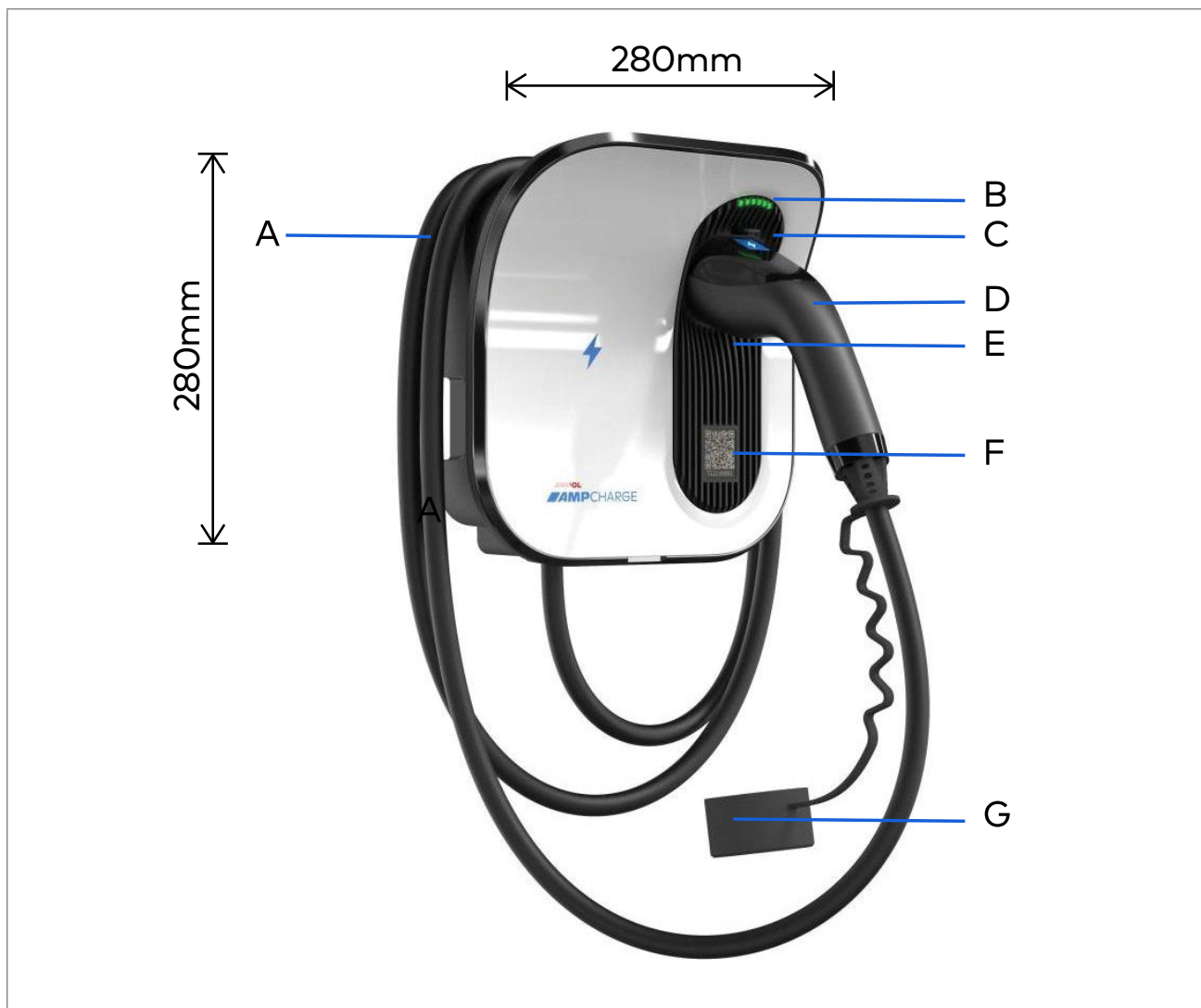


Figure 3-2 Wall-mounting EVSE

- A Cable winding groove
- B LED status indicator
- C Charging connector unlocking button
- D Charging connector
- E Charging connector holder
- F Charger ID code
- G Connector cover



3.3 Technical specifications

3.3.1 Product model

Power	Model	Name
7kW	AC0070EN02600	Artemis AC Charger (branded AmpCharge 7kW Flash)

3.3.2 Mains supply parameters

Minimum cable diameter	Follow the local regulation as per AS/NZS 3000 Australian Wiring Rules, and no less than 6mm ²
Connection Method	Fixed wiring, permanently connected
Input voltage	230VAC RMS (±10%)
Limits of input power	Single-phase input: with the maximum value of 32A
Frequency	50/60Hz
Required Earthing System	TN-C-S System, known as the M.E.N. System
Supply Circuit protection required	MCB – recommended C Curve 40A, plus Type A 30mA RCD, 1P+N
Stand-by Consumption	Less than 4W

3.3.3 Output of the EVSE

Vehicle connection	Type 2 connector, which meets the standard IEC62196-2
Output voltage	230VAC RMS (±10%)
Maximum output power	Single-phase output: with the maximum value of 32A
Maximum output power	7kW

3.3.4 Protection features and integrated components for safety

Residual current protection	DC leakage current detection: 6mA (has complied with IEC 62955 certification)
Energy meter	Accuracy: 1%
Power switch relay	Integrated in the hardware circuit when powered on or off
Over-current protection	<ul style="list-style-type: none">When the current reaches 110% - 125% of the rated current, the circuit is disconnected after 5 seconds.Disconnect the circuit as soon as the current is greater than 125% of the rated current
Over/Under-voltage protection	Over-voltage protection: 276Vac Under-voltage protection: 161Vac



3.3.5 Charging and access

Controllers	Mode 3
Status indication	LED status indicator
Card reader	N/A
Communication protocol	N/A (Free Charge)

3.3.6 Operating conditions

Operating temperature	-30°C~ +50°C
Relative humidity	5%~95% (No condensation)
Altitude	≤3000 m
Electrical safety class	I
Overvoltage Category	OVC III
Protection rating	IP65

3.3.7 Mechanical parameters

Dimensions (H x W x D)	280 mm×280 mm×148 mm
Weight	About 4 kg

3.3.8 Output power adjustment

Maximum Output Current	Rotary switch	0	1	2	3	4	5	6	7	8	9
		32	6	8	10	13	16	20	25	32	32



3.3.9 Compliance and standard adhered to

The EVSE has passed the CE certification and meets the requirements of RED Directive 2014/53/EU and Low Voltage Directive 2014/35/EU and the following standards:

- IEC 61851-1:2019
- IEC 61851-21-2:2018
- EN 50665:2017
- EN 62311:2008
- IEC 62955:2018

3.4 Charging connector type

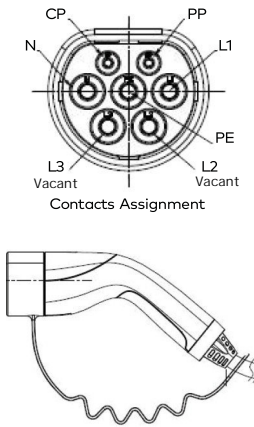
 <p>The diagram shows a top-down view of a Type 2 charging connector with labels: CP (Control Pilot), PP (Protective Pilot), L1, L2, L3, PE (Protective Earth), and N (Neutral). L3 and L2 are marked as 'Vacant'. Below the top view is a side view of the connector with a coiled cable.</p> <p>CP PP N L1 PE L3 Vacant L2 Vacant Contacts Assignment</p>	<p>The EVSE comes with a Type 2 connector tethered to the charger.</p> <p>The length of the charging cable outside of this EVSE is 5m.</p>
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Table 3-4 Charging connector type

3.5 Status of the LED indicator





Lighting effect	Meaning	
	White steady	Start-up – Wait for the charger standby
	Green flashing 1 time per 5s	EVSE in standby
	Steady blue	Charging connector connected
	Blue breathing	Charging
	Blue flashing 2 times per 1s	The EV/EVSE charging suspended
	Flashing (2 times)	Earth Fault
	Flashing (3 times)	Under-voltage
	Flashing (4 times)	Over-voltage
	Flashing (5 times)	Adhesion of relay Turn off the charger by shutting off the parent circuit breaker and restart the charger in about 20s. It takes about 2-5 minutes to restart the charger
	Flashing (6 times)	Over-temperature
	Flashing (7 times)	Leakage current fault
	Flashing (10 times)	Over-current

Table 3-5 Status of the LED indicator


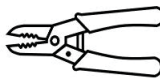

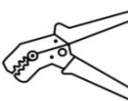
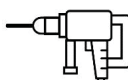
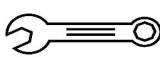
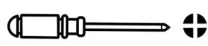
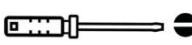

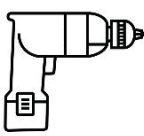




Note: Please contact the Ampol Customer Support team (13 14 04) for help if the indicator is red or flashing.





3.6 Preparation for installation

WARNING: Installation must be performed by a licensed electrician.

3.6.1 Installation tools

Tool type	Name	Purpose	Picture
Power cable preparation	Electrician knife	Stripping of insulating layers	
	Wire stripping pliers	Stripping of insulating layers	
	Crimping pliers	Crimping of pin terminals	
	Crimping pliers	Crimping of ring terminals	
Installation tool	Percussion drill	Drilling	
	Wrench or spanner set	Installing or removing nuts	
	Screwdriver (PH2)		
	Screwdriver (SL2)		
	Torx screwdriver (full set)		
	Electric torque screwdriver (with full set of PH screw bit, Torx screw bit and SL screw bit)		
	Hammer	Knocking	
Measurement tool	Spirit level	Horizontal measurement	
	Measuring Tool	Distance measurement	
Marking tools	Marker pen	Position making	



Tool type	Name	Purpose	Picture
Type 2 EVSE Test Adaptor	Type 2 EVSE Adaptor: E.g. Metrel A1532XA	Simulate EV, initiate no-load charging sessions, and permit electrical measurements and testing	
Installation Tester with RCD test capability including 30mA AC and 6mA DC	E.g. Fluke 1663 or 1664	Conduct pre and post energization testing to ensure safe and compliant installation works.	

Notice: The above tools shall be selected based on the actual situations on site.

3.6.2 Installation environment

WARNING: Do not perform the installation outdoor on rainy days.

Operating temperature	-30°C~ +50°C
Relative humidity	5%~95% (No condensation)
Altitude	≤3000m
Dust level	≤1mg/m ³
Corrosive substance	No pollutants, such as acid, smoke, etc.
Vibration	≤1.5mm/s ²
Fire considerations	<p>Avoid storing highly flammable liquids or substances near to or above the installed EVSE.</p> <p>When the EVSE is installed in a garage or carport associated with a residential dwelling consider installing a hardwired smoke alarm or heat alarm including interconnection to any other smoke alarms.</p>



3.6.3 Spacing requirements

Maintain sufficient clearance around the EVSE for future maintenance. Refer to Figures 3.6.3 and 3.6.4.3 for the required clearances when installing the EVSE near a wall or obstacle.

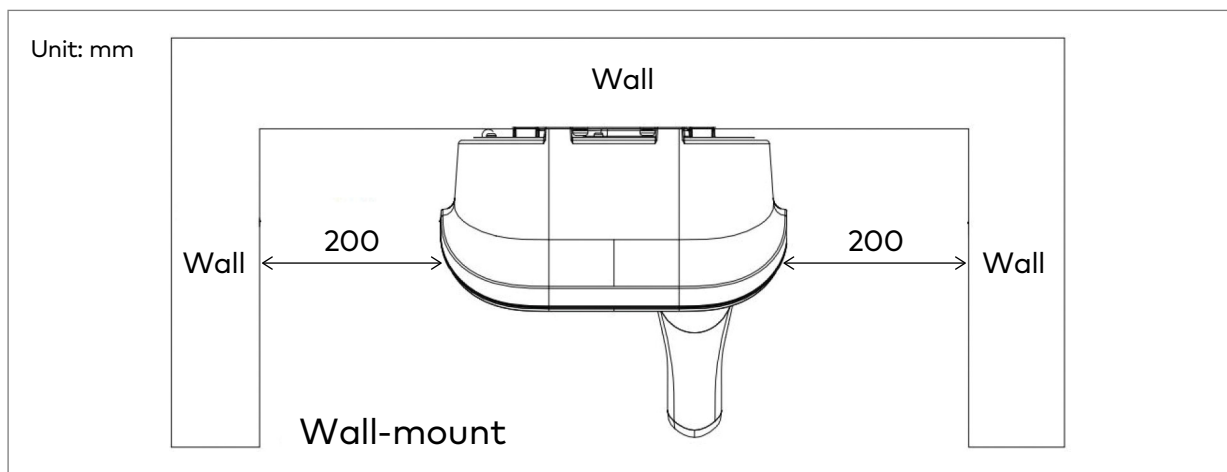


Figure 3.6.3 Wall mounting maintenance distance diagram

3.6.4 Power supply requirements

3.6.4.1 Power requirements

- Input voltage: 230V ($\pm 10\%$)
- Operating frequency: 50/60Hz
- Wall mount cable: Use a flexible wire crimped to the terminal.
- Recommended circuit protection: Type A RCBO or MCB + Type A RCD, $U_e=230V$, $I_n=40A$, 2P

3.6.4.2 Earthing system compatibility

M.E.N System

3.6.4.3 Electrical system diagram

Refer to the provided diagram in figure 3.6.4.3 for details on the 7kW electrical system configuration

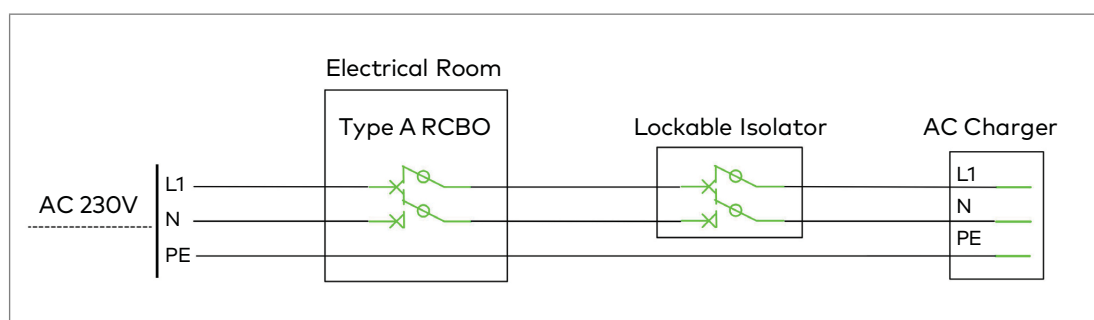


Figure 3.6.4.3 7kW electrical system



3.7 Installation procedure

3.7.1 Unpacking list

Device	Quantity	Accessories
Artemis AC Charger (branded AmpCharge 7kW Flash)	1	Positioning cardboard x 1
Mounting Kit	1	M6 x 50 self-tapping screw x 5 (1 for standby) Φ8 x 40 plastic expansion tube x 5 (1 for standby)
Cover key	1	N/A
Attached documents	3	Installation Manual (this document) x 1 Certificate of Compliance x 1 Promotional Card x 1

3.7.2 Unpacking inspection

Upon unpacking, inspect the following:

- Verify the packing list quantity matches the actual number of equipment pieces.
- Check the equipment nameplate for accurate information.
- Ensure all accompanying documents are present.
- Confirm all accessories are included.
- Inspect the equipment for any signs of damage, such as dents, bumps, or stains.



3.7.3 Wall mounting

The general assembly drawing is shown in Figure 3.7.3(a).

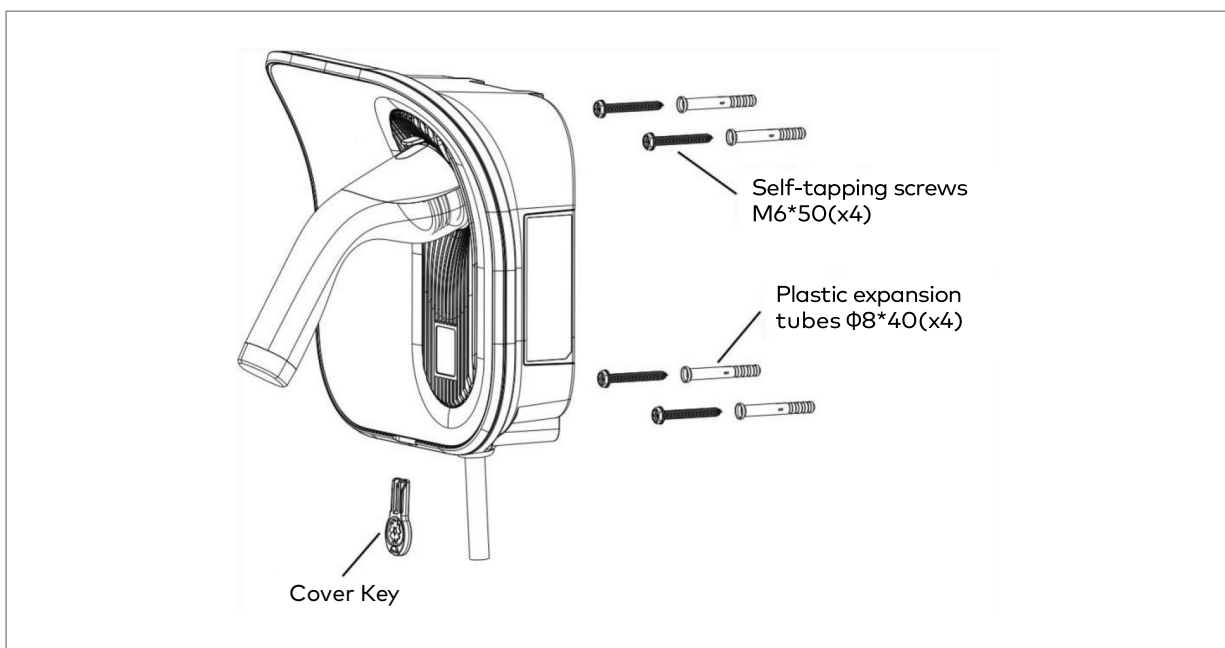


Figure 3.7.3(a) General assembly drawing of wall mounting

- (1) Mark the installation position of the EVSE with a marker pen and positioning cardboard. The top of the EVSE should be at least 0.85m above the ground.

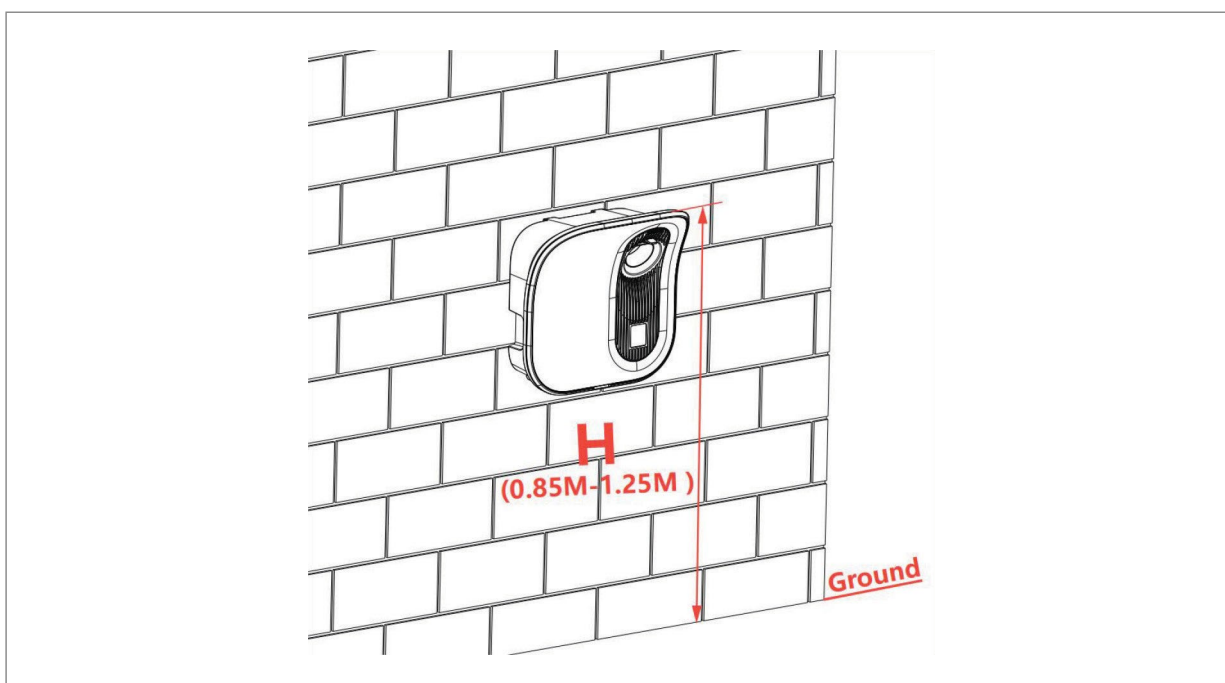


Figure 3.7.3(b) Determine the installation height

- (2) Drill 4 holes with a diameter of 8 mm and a depth of 50 mm on the wall using an impact drill, install $\phi 8 \times 40$ expansion tubes in 4 holes. First put the top two expansion tubes into self-tapping screws.

Note: The top two self-tapping screws flange end distance is reserved about 6mm distance from the wall, the cover key can be used to auxiliary calibration distance.

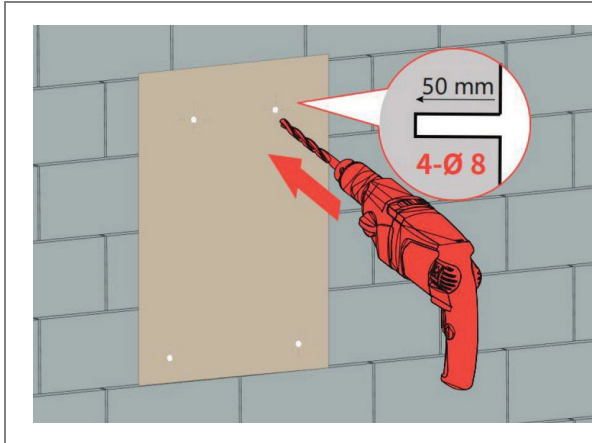


Figure 3.7.3(c) Mark the drill holes

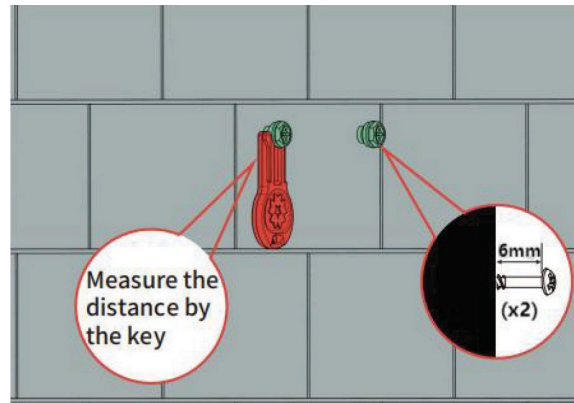


Figure 3.7.3(d) Install expansion screws

- (3) Use the cover key to open the decorative cover of the EVSE, hang the EVSE on the top two extended screws, and insert the two self-tapping screws at the bottom through the front screw mounting hole of the EVSE to fix the EVSE, as shown in Figure 3.7.3(e) and 3.7.3(f).

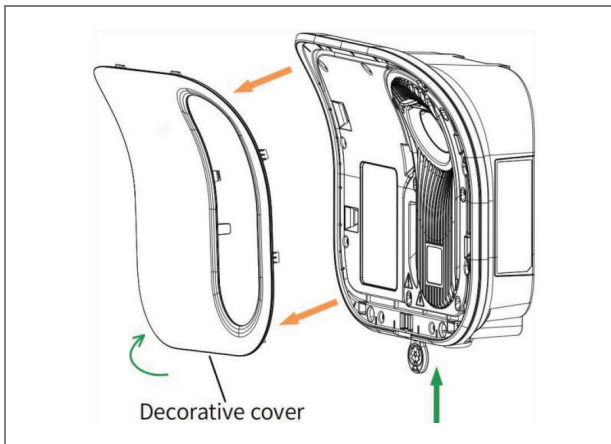


Figure 3.7.3(e) Remove the decorative cover

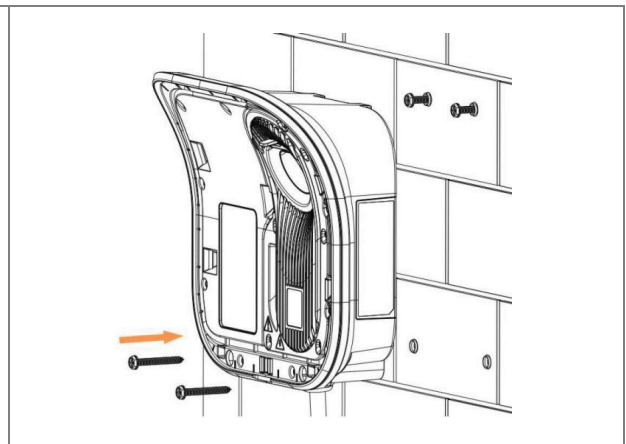


Figure 3.7.3(f) Fix EVSE



- (4) Remove the 6 screws connecting the charging connector holder and the front cover, then remove the charging connector holder and prepare to connect the power cable from the wiring window.

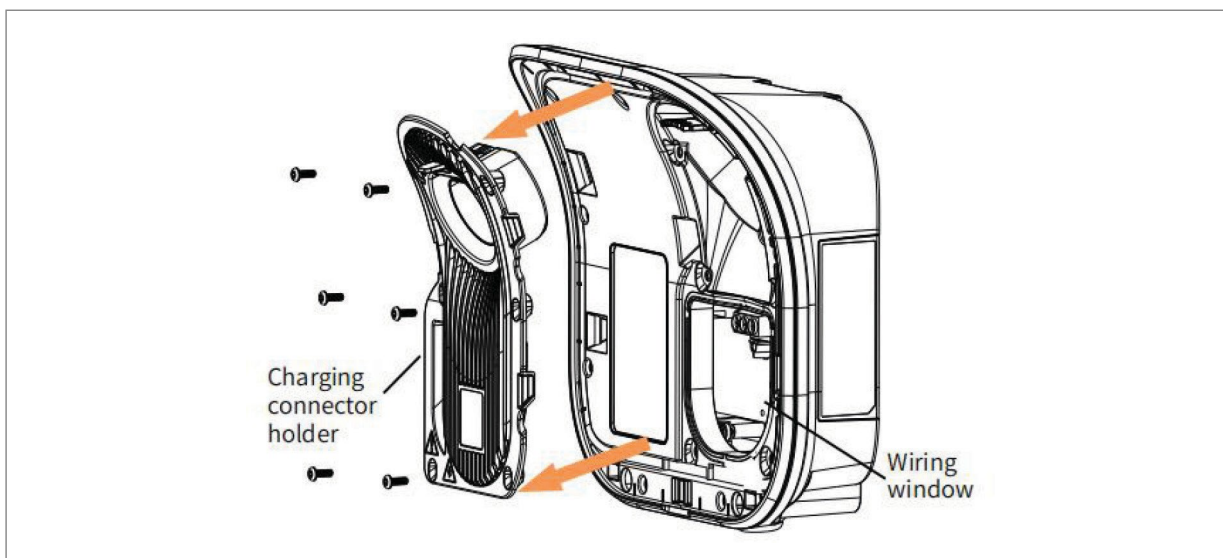


Figure 3.7.3(g) Remove the charging connector holder

- (5) If power cable is flexible conductors, it is recommended to use ferrules on stranded wires. Use correct tools to press them. Connection mode of 7kW in Figure 3.7.3(h).

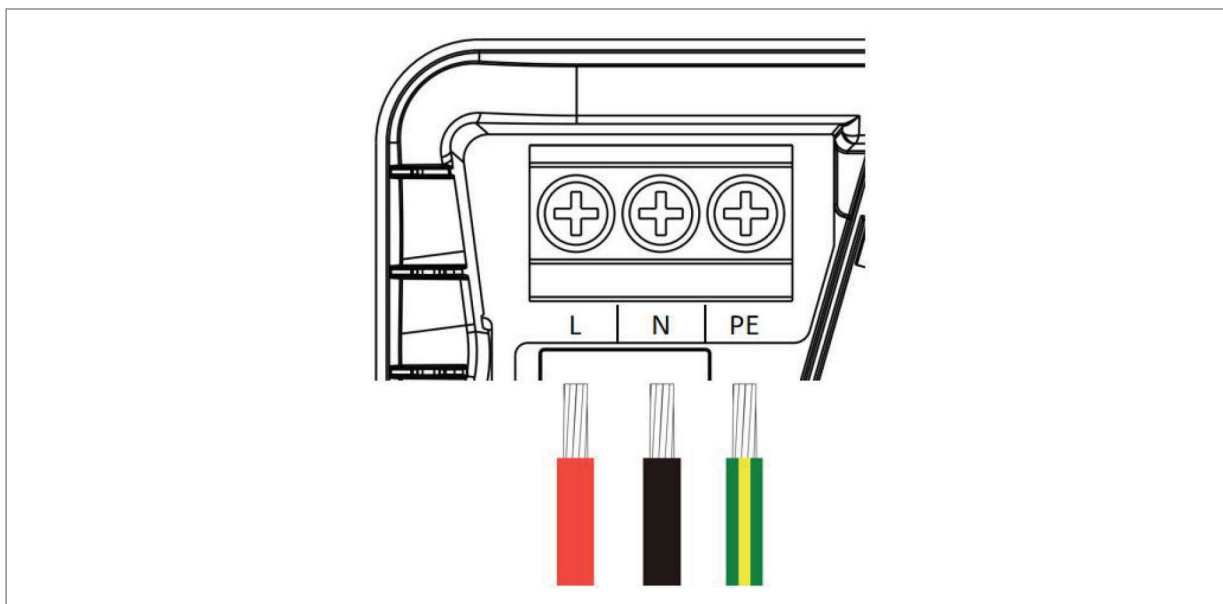


Figure 3.7.3(h) Wire stripping

Different wiring modes of 7kW inlet lines are shown in the following Figure 3.7.3(i).

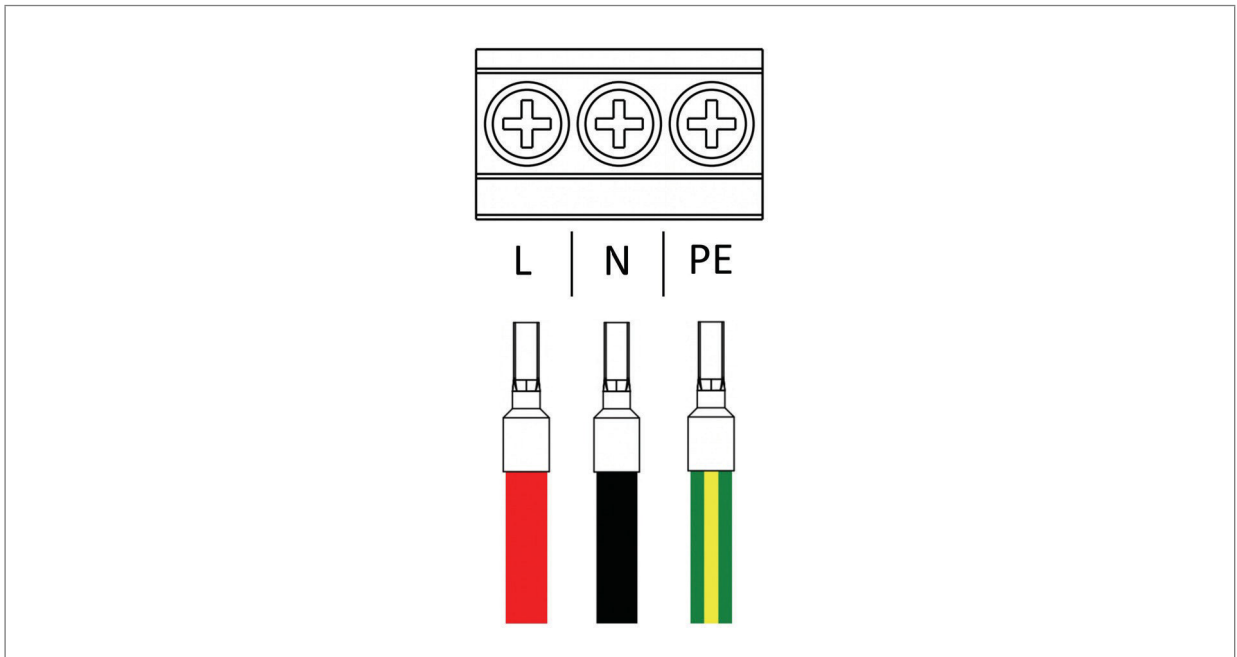


Figure 3.7.3(i) TN-C-S 1-phase

After connecting the wires to the terminals, gently tug on each wire to ensure a secure connection.

(6) The internal wiring diagram is shown in Figure 3.7.3(j).

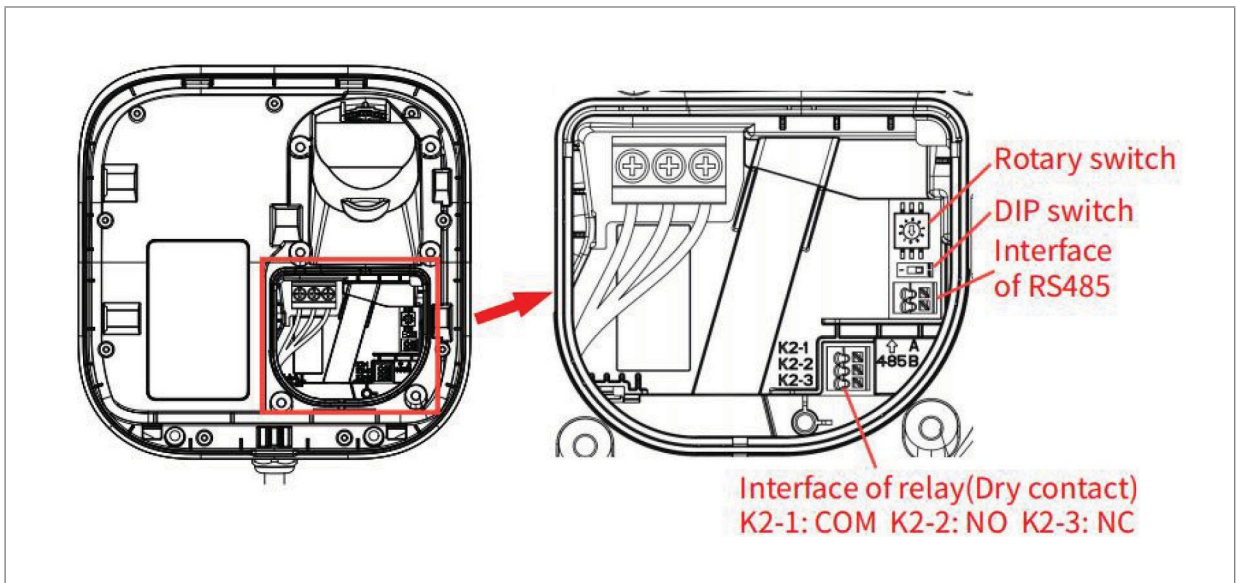


Figure 3.7.3(j) Wiring diagram

Note: The power cable hole is at the bottom of the EVSE, power cable hole is equipped with M25 gland, which is suitable for cable diameters of 13-18mm.



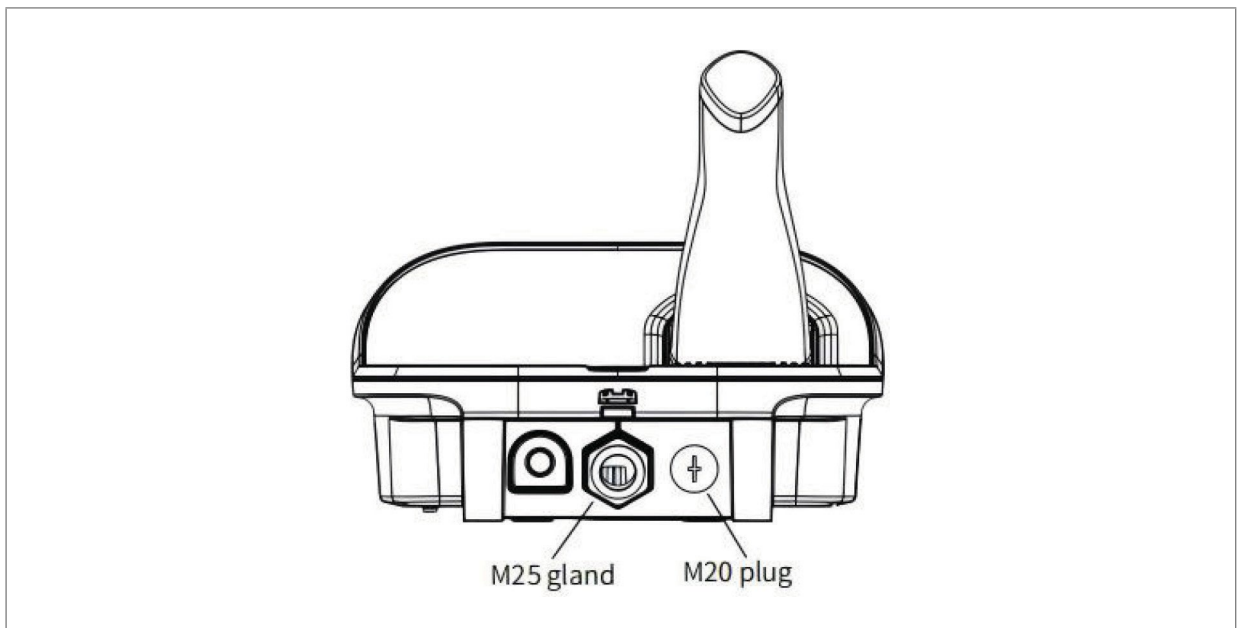


Figure 3.7.3(k) Cable glands

- (7) Check the sealing rubber strip of the wiring window is properly installed, after that reinstall the charging connector holder and tighten the 6 screws, reinstall the decorative cover, and insert the charging connector into the charging connector holder.

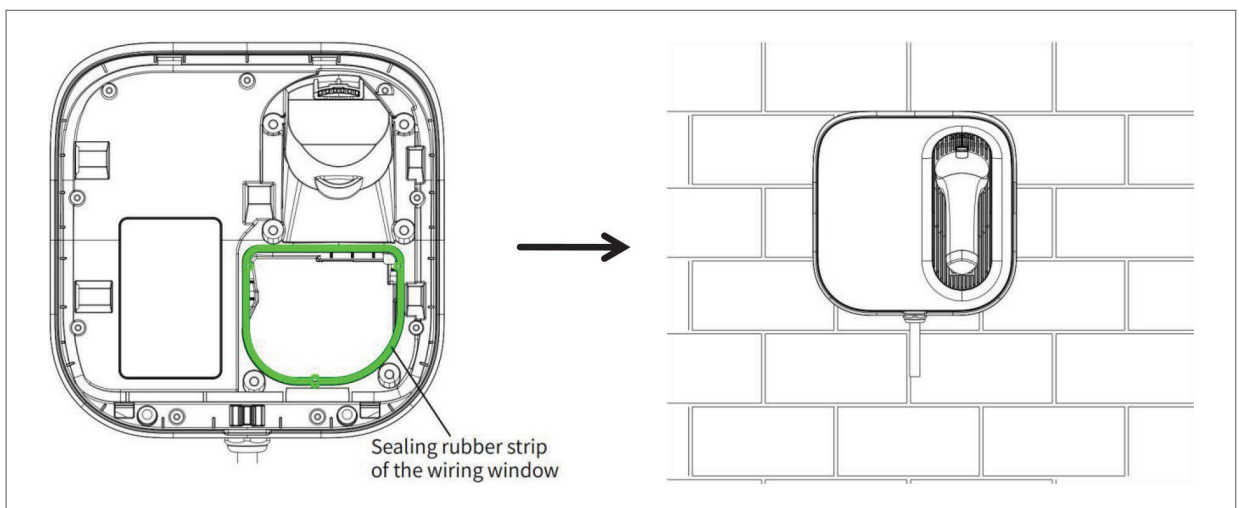


Figure 3.7.3(l) Complete the installation

Adjustable Output Power: Refer to Chapter 3.3.8.

4. Commissioning

4.1 Pre-power on checks

- Follow AS/NZS 3000 section 8.3 Mandatory Testing requirements.
- Connections: Verify that all screws and electrical connections are secure.
- Voltage Verification: Before activating the EVSE's protection device, measure the voltage on the applied MCB in the consumer unit. The voltage between the phase(s) and neutral should be within 10% of 230V.
- AS/NZS 3000 requires a number of mandatory tests to be conducted upon installation as per the testing equipment required, please ensure you can use a specialized RCD test instrument capable of 6mA smooth DC testing is required for testing of the built-in RDC-DD function. Recommended to use a thermal camera to verify there are no hot spots on the input connector.

4.2 Power on and startup

- Power on: Switch on the power to the circuit where the EVSE is installed.
- EVSE Ready: Wait until the LED indicators turns green.
- Use a commercially available Type 2 EVSE test adaptor and suitable test instruments to confirm correct operation of integral 6mA RDC-DD residual current protection.

4.3 Customer Training

Following EVSE commissioning, the electrician should provide basic user training on the EVSE's key features.

This training can be delivered in document form or through a practical on-site explanation. The training content should cover safety knowledge, basic charging procedures, and other relevant topics.

Please provide the customer with the Completed Certificate of Compliance for the Installation.

4.4 Commissioning Report

Commissioning Report	
Please provide the customer with the Completed Certificate of Compliance for this Installation	
Date:	
Commissioning Electrician:	
Electrician Electrical License:	
Charging Station (Serial Number):	
Installation Address:	



5. Troubleshooting

WARNING: Troubleshooting must be performed by a licensed electrician.

Failure	Possible case	Solution
The power LED is not on	No power supply	<ul style="list-style-type: none"> • Check if the parent MCB+ Type A RCD or Type A RCBO have been turned off. • Make sure that the input power cable is intact and has been properly and securely connected to the EVSE. • Check whether the power voltage on the grid side is within the operating range (230/ $\pm 10\%$ Vac) of EVSE with a voltage tester. • Turn off the EVSE by shutting off the parent circuit breaker and restart the EVSE in about 20s. • When the incoming cable is affected by the surge or wrong wiring sequence, the device will cut of power for protection. Ensure incoming cables are installed correctly and in the correct sequence. Power on after above checking finished.
Failure to start charging process	The connector is not inserted correctly.	Plug and unplug the charging connector again and confirm that the connector is seated properly.
	Failure to execute charging process correctly.	<p>Please follow the instructions in 4.2 Charging process of user manual.</p> <p>The User Manual can be found as an electronic document on the Ampol AmpCharge website and is accessible via the QR code provided on the product nameplate.</p>
	The connector may be stained or damaged in the locking area.	Clean or replace the connector.
The vehicle is not fully charged or the charging time increases	The current decreases due to high temperature of vehicle or EVSE.	<ul style="list-style-type: none"> • Visually check whether the connectors are stained, worn or damaged. • When necessary, please contact Ampol (13 14 04).



Failure	Possible case	Solution
The failure status LED becomes red	Red color is solid on: CP fault/ Electric meter failure/NO ID	Please contact Ampol (13 14 04).
	The red color is flashing (2 times): Earth fault	Check whether the grounding of device is loose, damaged or removed. Measure whether the grounding resistance of EVSE exceeds the standard (the grounding resistance is generally within 100Ω) with a tester (e.g. multimeter).
	The red color is flashing (3 times): Under-voltage	Check whether under-voltage ($\leq 161\text{Vac}$) happens to the power voltage on the grid side with a voltage tester.
	The red color is flashing (4 times): Over-voltage	Check whether over-voltage ($\geq 275\text{Vac}$) happens to the power voltage on the grid side with a voltage tester.
	The red color is flashing (5 times): Relay welding fault	Please contact Ampol (13 14 04).
	The red color is flashing (6 times): Over-temperature	Power off the EVSE. Turn on the EVSE when the temperature returns to normal.
	The red color is flashing (7 times): Leakage current fault	Please contact Ampol (13 14 04).
	The red color is flashing (10 times): Over-current	Please check if the current is within the recommended range.

Note: If the problem still exists, please contact Ampol (13 14 04).



6. Terms and Definitions

Acronym	Definition
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
MCB	Miniature Circuit Breaker
RCD	Residual Current Device
RCBO	Residual Current Circuit Breaker with Overcurrent Protection
DC RCD	DC Residual Current Device
RDC-DD	Residual Direct Current – Detecting Device

