Open Energy for All

AC EV Charger

# USER MANUAL

VAS-7-G2
VAT-11-G2
VAT-22-G2

## Legal Notice

Hoymiles has made every effort to ensure the accuracy and completeness of this manual. However, this manual may be changed and revised due to product enhancements or user feedback.

Hoymiles reserves the right to modify this manual without prior notice at any given time. The latest version of this manual can be found by visiting the Hoymiles official website ***www.hoymiles.com*** or scanning the QR Code below.

## Warranty

Follow the installation instructions in this manual to ensure warranty compliance and reliability. The current warranty conditions can be accessed at ***www.hoymiles.com***.

## Contact Information

If you have technical queries or any questions concerning our products, please contact our support through the Hoymiles service portal:

**Germany**
service.de@hoymiles.com

**Spain**
service.es@hoymiles.com

**France**
service.fr@hoymiles.com

**Italy**
service.it@hoymiles.com

**Netherlands**
service.nl@hoymiles.com

**Norway**
service.no@hoymiles.com

**Poland**
service.pl@hoymiles.com

**Finland**
service.fi@hoymiles.com

**Austria**
service.at@hoymiles.com

**Other EU countries**
service.eu@hoymiles.com

**Australia & New Zealand**
service.au@hoymiles.com

**Asia & Pacific**
service.asia@hoymiles.com

**Germany**
+49 6994322186

**France**
+33 159131589

**Netherlands**
+31 852736388

**Poland**
+48 918821656

***hoymiles.com***

# Contents

# 1 About This Manual

## 1.1 Purpose

This manual provides information on the installation, electrical connections, operation, and maintenance of the VAS/VAT series EV charger which is also called EVSE (Electric Vehicle Supply Equipment).

Please consider the following before installation:

- Carefully read this manual before operation.
- Keep this manual for reference.

## 1.2 Audience

This document is applicable to individuals who meet the following requirements.

| Target Audience | Requirements |
|---|---|
| EV charger owners | • Own and operate the EV charger for commercial or business purposes, or may allow others to use it.<br>• Legally responsible for protecting users, other employees, and third parties while the charger is working. |
| Qualified engineers | • Proficiency in the installation, operation, and maintenance of the EV Charger.<br>• Training in the installation and commissioning of electrical devices.<br>• Ability to identify potential hazards of the product and take necessary measures to protect personal and property safety.<br>• Familiar with local laws and regulations.<br>• Compliance with this document and all safety precautions. |

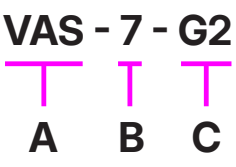
## 1.3 Validity

This manual is valid for:

- VAS-7-G2
- VAT-11-G2
- VAT-22-G2

**NOTE**

*Model identifier:*




[A]: Series Name
VAS: Single-phase AC EV charger
VAT: Three-phase AC EV charger

[B]: Rated Input/Output Power (7 kW)

[C]: Generation (The Second Generation)

# 2 Safety Information

Before installing, operating, commissioning, and maintaining the EV charger, please carefully read the safety rules and usage instructions in this document as failure to do so may result in safety hazards or device damage. During the installation and operation of the EV Charger, it is imperative to comply with local laws and regulations.

## 2.1 Safety Symbols

Safety symbols are used in this manual as follows:

| Symbol | Description |
|---|---|
| ⚠ DANGER | This symbol indicates potential risks that, if not avoided, may lead to death or serious physical injury. |
| ⚠ WARNING | This symbol indicates potential risks that, if not avoided, may lead to personal injury or device damage. |
| ⚠ CAUTION | This symbol indicates potential risks that, if not avoided, may lead to device malfunctions or financial losses. |
| NOTICE | This symbol indicates potential risks that, if not avoided, may lead to minor injury or damage to the equipment. |
| ⓘ NOTE | This symbol indicates an important step or tip that leads to the best results but is not safety or damage related. |

## 2.2 Additional Symbols

The product label contains the following symbols with their meanings described below:

| | |
|---|---|
|  | **Electric hazard**<br>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. Only perform operations with this symbol if you fully understand and meet all requirements. |
|  | **Caution**<br>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 requirements. |
|  | **Garbage disposal**<br>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 in accordance with local disposal regulations for electronic waste. |
|  | **Grounding**<br>This symbol indicates ground protection. Once the ground fails or there is no grounding, the EV charger will report fault and stop charging. |
|  | **CE mark**<br>The product complies with the requirements of the applicable EU directives. |
|  | **Observe the documentation**<br>Read and understand all documentation supplied with the product. |

## 2.3 General Safety

- Only qualified personnel can install, operate, commission, and maintain the product.
- All installation and wiring must be done when the AC cables are not energized. This means that the EV charger cannot be turned on during this process, which helps to prevent electrical accidents, short circuits, and electric shock hazards. It makes sure that the system will not be turned on during risky procedures, which reduces the risk of fires.
- Keep the product far from explosive or flammable substances.
- Do not use the product in or near water.
- If it is visibly damaged, do not use it.
- Do not clean the product with running water or a pressure washer.
- Do not change or modify the product unless Hoymiles has approved it.
- Do not wrap the cables around the product while charging.
- Do not put the charging connector on the ground. Put it in its holder after charging.
- Only qualified personnel can perform relevant operations that are described in this manual or related manual.
- Follow the safety and accident prevention rules for the product and the place where it is used.
- Make sure the product is used in the environmental conditions that are specified for it. For more information about environmental requirements, refer to the technical parameters.
- When handling the electrical connection, always follow safety precautions, wear personal protective equipment (PPE), and use insulated tools.
- Follow local laws and regulations and instructions in this document. If any requirements in this document are not the same as local laws and regulations, follow local laws and regulations or the stricter one of the two, as permitted by law.

## 2.4 Personnel Safety Guidelines

### 2.4.1 General Requirements

- Be trained in safety and job skills, and pass the corresponding assessment.
- Understand how the electric vehicle and EV charger work, how to troubleshoot common problems, how to maintain the charger, how to handle emergencies,  and how to impart safety knowledge.
- Follow local laws and regulations and instructions in this document. If any requirements in this document are not the same as local laws and regulations, follow local laws and regulations or the stricter one of the two, as permitted by law.
- know about electrical safety requirements and how to do first aid and emergency treatment.
- Strictly follow the operating procedures and job specifications when working to ensure safety and stability.
- Wear a uniform, work permit, insulated shoes and gloves, a safety helmet, and other protective gear if necessary.
- Be responsible for their work and fulfill their service commitments to the best of their abilities.
- Communicate with customers in a professional and courteous manner, using clear and concise language.

### 2.4.2 Operational Guidelines

| Item | Guideline |
|---|---|
| Preparation | • Follow the safety rules of the construction site.<br>• Wear personal protective equipment (PPE), and make sure they are in good condition.<br>• Do not wear unsafe clothing, such as loose clothes or slippers.<br>• Safely use portable power tools.<br>• Tie up your tools if working at heights is needed.<br>• Do not go to work inebriated.<br>• Before installing, operating, and commissioning the EV charger, confirm the upper power supply point, power supply lines, and whether there is a safety emergency plan on site.<br>• Make sure the metal shell is grounded or connected to the neutral line.<br>• Make sure there are at least two carbon dioxide fire extinguishers on site. |

| | |
|---|---|
| Protective Measures | • If there is heavy dust on the construction site or painting work is being done, wear a dust mask.<br>• Do not enter dangerous areas, such as places under the position of vertical operation.<br>• Do not strike objects.<br>• Stay away from mechanical equipment and electrical circuits to prevent accidents.<br>• Assume that all electrical equipment and lines are live, do not touch them before checking the power. Turn off the power and check them again before touching them. Put a “No closing, someone is working” sign on the power switch handle or take other measures to prevent false closing. |
| Protective Measures | • When working on live equipment, first identify the L, N, and PE lines and choose a safe working position. When working, do not touch the conductive part and the ground part at the same time.<br>• Do not change the original wiring and structure of the EV charger without permission and approval.<br>• After the work is completed, restore the components to their original state, check the tools to prevent omissions, and clean and organize the site.<br>• Replace damaged electrical components immediately.<br>• Temporary wires must be made of rubber cables, not plastic flexible cords.<br>• Do not plug temporary wires directly into sockets.<br>• Do not use temporary electrical components when they are live. |
| Ground Conditions | • Be careful of ground conditions with iron nails and steel bars to prevent injuries such as piercing, touching, hanging, and falling. |
| Site Maintenance | • Do not dismantle construction site protection facilities, safety signs, and warning signs without permission.<br>• Maintain construction equipment in good condition to prevent malfunctions or overload operation. |
| Product Usage | • Keep the cover of the charger closed after installing it to prevent it from getting wet in the rain. |
| Accident Treatment | • Immediately turn off the power at the upper power supply point and start the safety emergency plan.<br>• Report to the relevant person in charge immediately as required.<br>• Conduct on-site emergency treatment in accordance with the emergency plan for the first time.<br>• Control the spread and expansion of the accident, and rescue personnel and property.<br>• If there is an electric shock, immediately cut off the upper power and perform rescue according to the emergency rescue method.<br>• Make emergency calls for professional help and report to the superior leader.<br>• Make a record. |

**ⓘ NOTE**

- Only people who have been authorized, certified, and trained by Hoymiles or other qualified personnel can commission the AC EV charger. Hoymiles will not be responsible for any losses caused by third-party personnel commissioning the AC EV charger without Hoymiles’ authorization.
- Commissioning must be done carefully according to the procedures. If any operation cannot be completed, it must be stopped until the problem is found and solved. Commissioning cannot be done in severe weather conditions such as rain, snow, or sandstorms.

## 2.5 Fire Safety Guidelines

### 2.5.1 Construction Site Requirements

- Do not store flammable and explosive materials on the construction site. Choose proper storage areas for these materials to prevent accidents.
- Place at least two fire extinguishers in a location that is easy to see and access, such as carbon dioxide fire extinguisher, to respond to any possible fire hazard.
- Make sure the fire distinguishers do not block any evacuation routes and can be quickly and safely accessed in an emergency.

### 2.5.2 Emergency Response Plans

| Stage | Implementation |
|---|---|
| Initiation | If a fire happens, tell the emergency command leading group right away. Everyone must follow the orders of the emergency response team to help rescue people and take relevant actions. |
| Contingency Procedures | If you see a fire accident:<br>• Stop charging immediately. If the fire is in the charging station, stop the charging process to prevent the fire from getting worse.<br>• Call the fire department. Call the fire department right away and tell them where the fire is.<br>• Evacuate safely. Get away from the fire quickly and stay away from it.<br>• Use a fire extinguisher (if possible). If the fire is small, you can use a fire extinguisher to put it out. But make sure you use the right type of fire extinguisher.<br>If there is a fire:<br>• Tell your supervisor right away.<br>• If the fire is small and you can control it, use a fire extinguisher to put it out. While you are doing this, tell people at all levels about the fire.<br>• Have at least two people fight the fire. Stand upwind, crosswind, or in a safe position.<br>• If you cannot control the fire, have everyone in the area evacuate immediately.<br>• If the fire gets bigger, the person in charge must evacuate everyone immediately.<br>• Tell employees in the affected area to go to the assembly point along the designated route. Follow the instructions of the person in charge of the company.<br>• The emergency response team (ERT) will organize rescue efforts according to the fire.<br>• If you cannot control the fire, report it to the government department in time for support. Cooperate with the fire brigade for rescue efforts.<br>• Collect information about what happened before the fire, what the monitoring system showed, and what witnesses saw. This will help you to understand what caused the accident. You will need to share this information with the owner.<br>• Give the local fire department the information they need to investigate the cause of the fire.<br>• If the company did not cause the losses, the local branch will claim compensation from the relevant parties. The company's EHS (environment, health, and safety) and risk control center will provide support and cooperation. |
| Conclusion | When the emergency crews have finished their work, the people in charge of emergencies will announce that the disaster is over and the emergency is lifted. Everyone can go back to their normal work. |

## 2.6 EU Declaration of Conformity

Hoymiles Power Electronics Inc. hereby declares that the EV charger described in this document is in compliance with the basic requirements and other relevant provisions of directives 2014/53/EU, 2014/35/EU, 2011/65/EU, and (EU) 2015/863.

More detailed information can be found at ***https://www.hoymiles.com***.

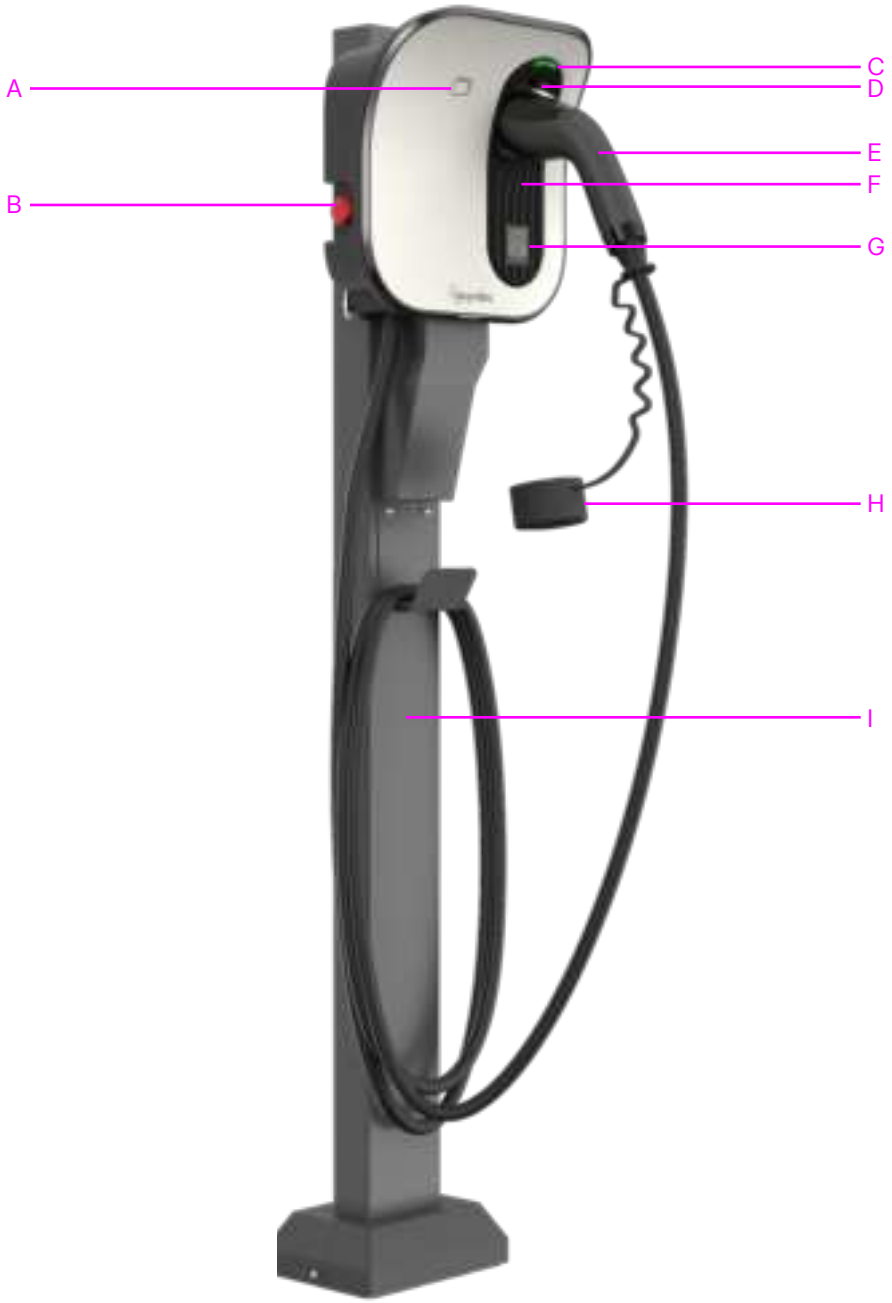
# 3 Product Introduction

## 3.1 Product Appearance

**Wall mounting**

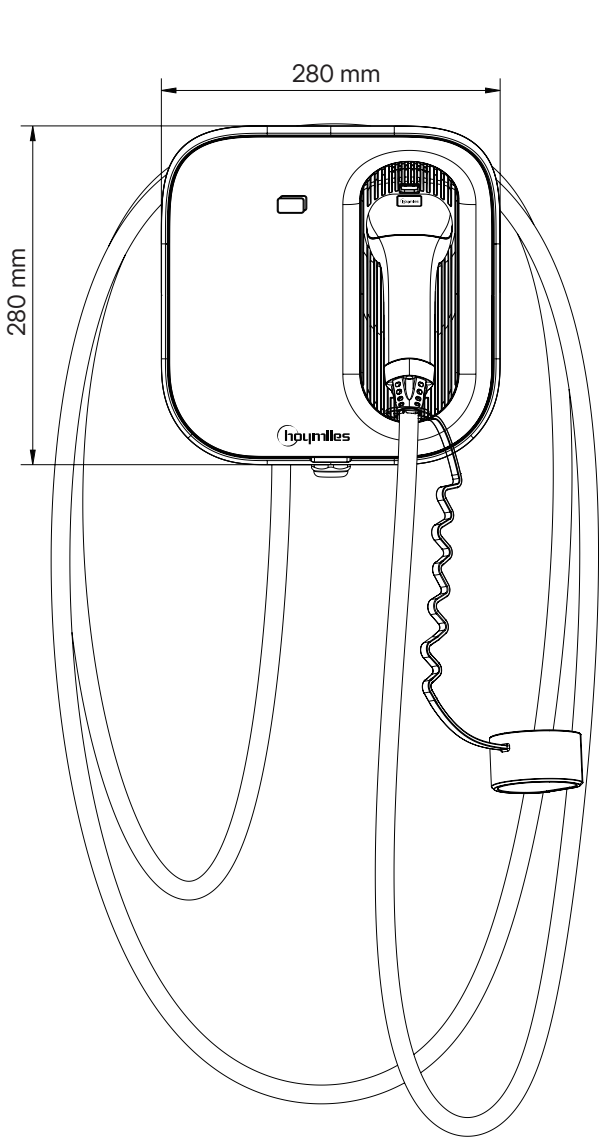

| Item | Description |
|---|---|
| A | Cable Winding Groove |
| B | RFID Reader |
| C | Emergency Stop Button |
| D | LED Indicators |
| E | Charging Connector Unlocking Button |
| F | Charging Connector |
| G | Charging Connector Holder |
| H | QR Code |
| I | Sealed Cap |

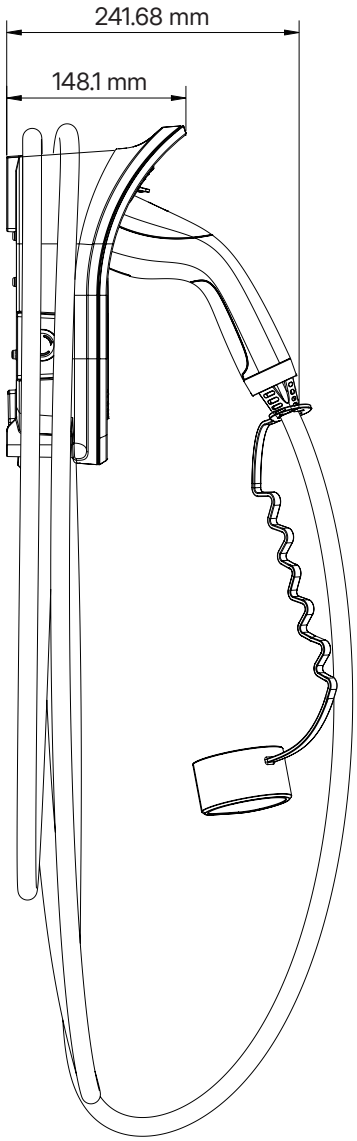
**Pole mounting**

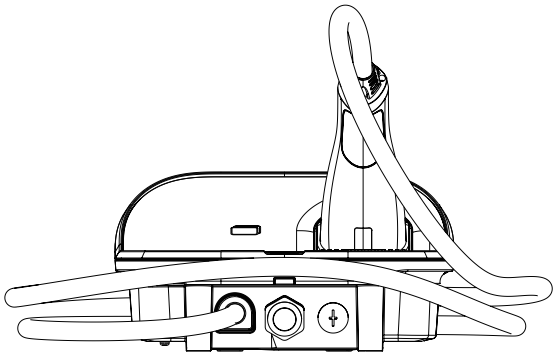


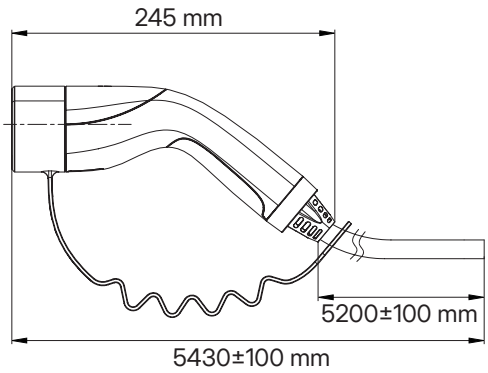

| Item | Description |
|---|---|
| A | RFID Reader |
| B | Emergency Stop Button |
| C | LED Indicators |
| D | Charging Connector Unlocking Button |
| E | Charging Connector |
| F | Charging Connector Holder |
| G | QR Code |
| H | Sealed Cap |
| I | Pole |

## 3.2 Product Dimensions





## 3.3 LED Indicators

| Indicator | Indicator Status | Description | Subsequent Operation |
|---|---|---|---|
|  | Flashing green every 4s | The charger is in standby, and no fault occurs. | • Correctly plug the charging connector into the electric vehicle and swipe the RFID card to start charging.<br>• (For PNC Mode) Correctly plug the charging connector into the electric vehicle and start charging. |
|  | Solid blue | The charging cable is connected. | Start charging by swiping the RFID card. |
| | Flashing blue quickly every 0.125s | RFID card reading. | Wait until the RFID authentication is completed to start charging. |
| | Breathing | Charging. | The electric vehicle is being charged. |
| | Flashing blue slowly every 0.5s | The electric vehicle suspends, or the EV charger suspends. | Check the vehicle screen:<br>1. If any failure is found, replace the charger.<br>2. If the failure is still displayed, please consult the vehicle dealer.<br>3. If not, the grid side has limited the charging. |
|  | Solid red | 1. CP fault or smart meter fault.<br>2. The ID is not configured. | 1. Solve the problems according to the ***8.2 Troubleshooting***.<br>2. If the problems cannot be solved, please contact your dealer or service provider. |
| | Flashing red 1 time | The emergency stop button is pressed. | |
| | Flashing red 2 times | Ground fault | |
| | Flashing red 3 times | Undervoltage | |
| | Flashing red 4 times | Overvoltage | |
| | Flashing red 5 times | Relay adhesion | |
| | Flashing red 6 times | Overtemperature | |
| | Flashing red 7 times | Leakage current fault | |
| | Flashing red 10 times | Overcurrent | |

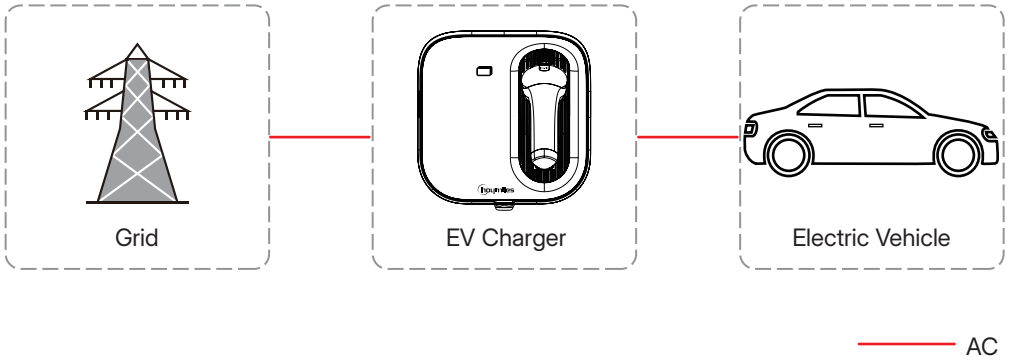
## 3.4 Emergency Stop Button

In the event of an emergency, press the emergency stop button immediately to cut off power output. Upon activation, the LED indicator will turn red. If the emergency stop button is not available, please power off the EV charger.

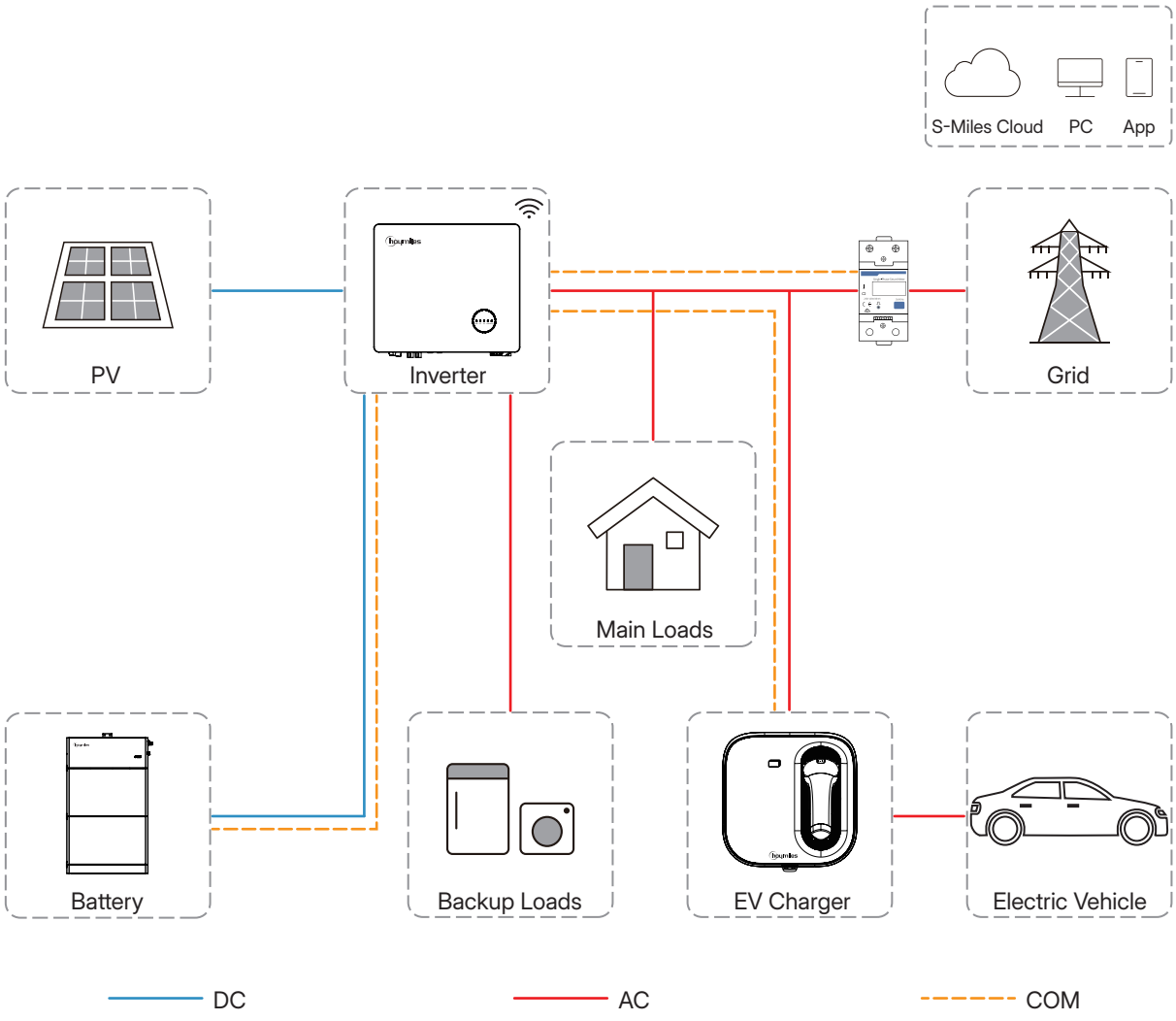
Please note that the EV charger cannot be remotely reset if the emergency stop button is pressed, contact our customer service center to solve any problem. The qualified personnel should reset the emergency stop button once the problem is solved.

## 3.5 System Diagram

### Stand-alone EV Charger System




### PV-ESS-EV Charging System



## 3.6 Product Usage

Users can start and stop charging through RFID Card, App, or Free Charge. The default charging method is RFID Card. Users can also log in to the S-Miles App to change the charging method and configure relevant parameters. For details about online operation, refer to ***7 S-Miles Cloud***. The operation instructions for RFID Card and Free Charge are shown as follows.

### 3.6.1 RFID Card

**NOTE**

The RFID card can be used directly without activation.

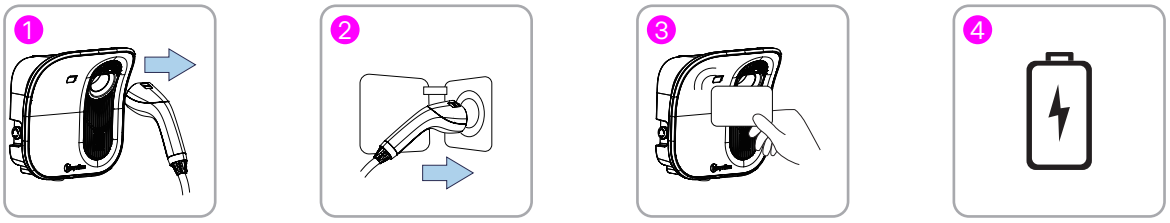
- **Start Charging**

  **Step 1** Pull out the charging connector from the EV charger.

  **Step 2** Connect the charging connector to the electric vehicle. The charging connector is correctly connected once the LED indicator on the charger is solid blue.

  **Step 3** Authorize the charging process by swiping the RFID card. Note that the charging process is successfully authorized once the indicator on the charger is flashing blue quickly every 0.125s.

  **Step 4** The charger will start charging when the blue indicator is breathing.

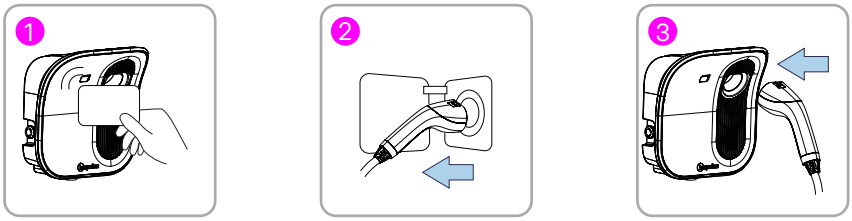



- **Stop Charging**

  **Step 1** Swipe the RFID card before the RFID reader until the indicator flashes blue slowly every 0.5s. (If the electric vehicle has been fully charged, the charger will automatically stop with no need to swipe the card.)

  **Step 2** Remove the charging connector from the electric vehicle.

  **Step 3** Wrap the charging cable around the enclosure and plug the charging connector into the holder.



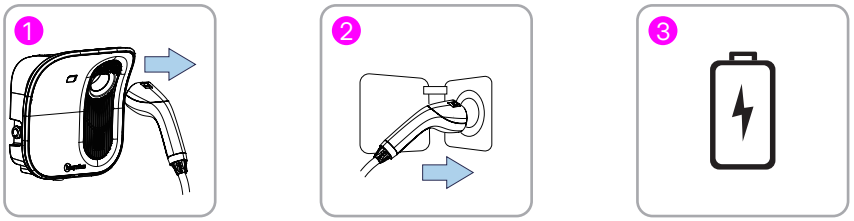
### 3.6.2 Free Charge

- **Start Charging**

  **Step 1** Pull out the charging connector from the EV charger.

  **Step 2** Connect the charging connector to the electric vehicle. The charging connector is correctly connected once the indicator on the charger is solid blue.

  **Step 3** The charger will start charging when the blue indicator is breathing.

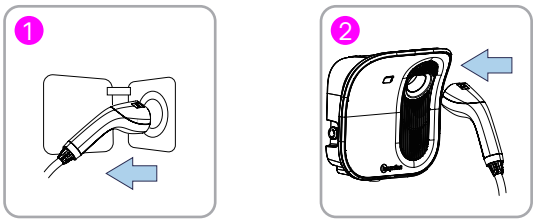



- **Stop charging**

> **NOTE**
>
> The charging connector can be removed only when any of the following three conditions are met:
> - The electric vehicle stops charging.
> - The electric vehicle is fully charged.
> - The charging process is stopped via the S-Miles App.

  **Step 1** Remove the charging connector from the electric vehicle.

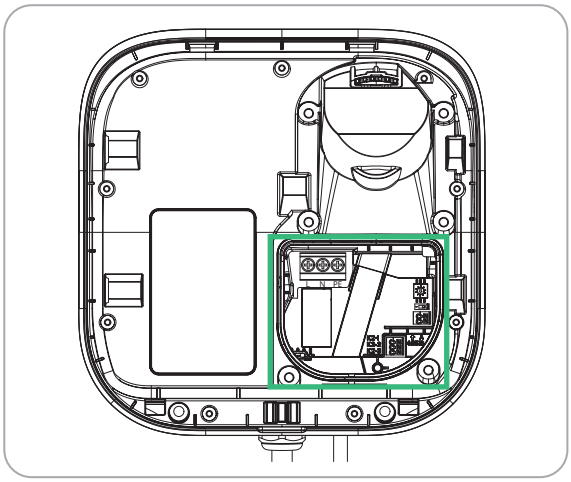
  **Step 2** Wrap the charging cable around the enclosure and plug the charging connector into the holder.

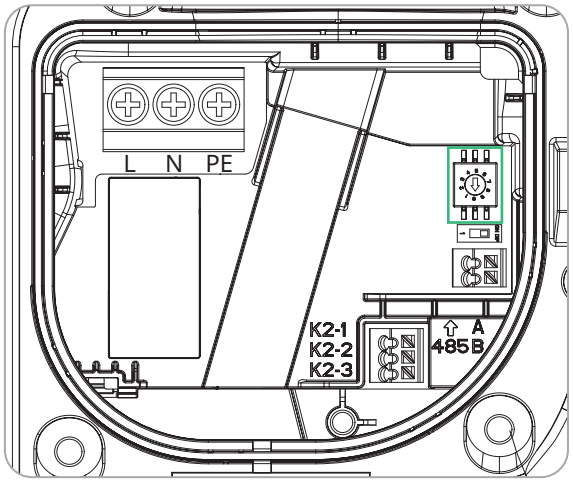



## 3.7 Product Function

### 3.7.1 Output Power Limit

The EV Charger can limit the output current by adjusting the rotary switch. The rotary switch and its corresponding values (unit: A) are shown as follows.





| Rotary Switch / Model | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| VAS-7-G2 | 32 | 6 | 8 | 10 | 13 | 16 | 20 | 25 | 32 | 32 |
| VAT-11-G2 | 16 | 6 | 8 | 10 | 13 | 16 | 16 | 16 | 16 | 16 |
| VAT-22-G2 | 32 | 6 | 8 | 10 | 13 | 16 | 20 | 25 | 32 | 32 |

### 3.7.2 Green Power Mode

The green power mode is to use the surplus PV power in preference to charge the electric vehicle.

Surplus PV power = PV power - load consumption - ESS charging power.

To protect the electric vehicle, users need to set the value of Max Charging Power from Grid when enabling the green power mode, to ensure that the charger still can charge the electric vehicle when the PV power is not stable or the surplus PV power is less than the EV charger start power.

**NOTE**

- The minimum start power of a single-phase EV charger is 1.4 kW.
- the minimum start power of a three-phase EV charger is 4.2 kW.
- It is recommended that the Max Charging Power from Grid should be larger than the EV charger start power, otherwise, the EV charger may not start.

In green power mode, the EV charger charging power is related to the surplus PV power and Max Charging Power from Grid. The following table takes the single-phase EV charger as an example to illustrate the correlation.

Table 1 Max Charging Power from Grid > Minimum Start Power (the EV charger is sure to start)

| Surplus PV Power (kW) | Max Charging Power from Grid (kW) | Actual Charging Power (kW) |
|---|---|---|
| 4 | 3 | 4 |
| 2 | 3 | 3 (surplus PV power 2 kW + grid input power 1 kW) |
| 1 | 3 | 3 (surplus PV power 1 kW + grid input power 2 kW) |
| 0 | 3 | 3 |

Table 2 Max Charging Power from Grid < Minimum Start Power (the EV charger may not start)

| Surplus PV Power (kW) | Max Charging Power from Grid (kW) | Actual Charging Power (kW) |
|---|---|---|
| 4 | 1 | 4 |
| 1 | 0.5 | 1.4 kW (surplus PV power 1 kW + grid input power 0.4 kW) |
| 1 | 0.3 | 0 |
| 0 | 1 | 0 |

# 4 Installation Instruction

**⚠ DANGER**

- Make sure that holes are not drilled over any electrical parts or plumbing installations to avoid electric shock or other injuries.
- Improper installation and maintenance can be dangerous.

**⚠ WARNING**

- Only qualified personnel can install a charger following local laws and regulations.
- All powers should be disconnected before installation and maintenance.
- Do not install the charger in explosive environments, areas with high electromagnetic radiation, or flood-prone areas.

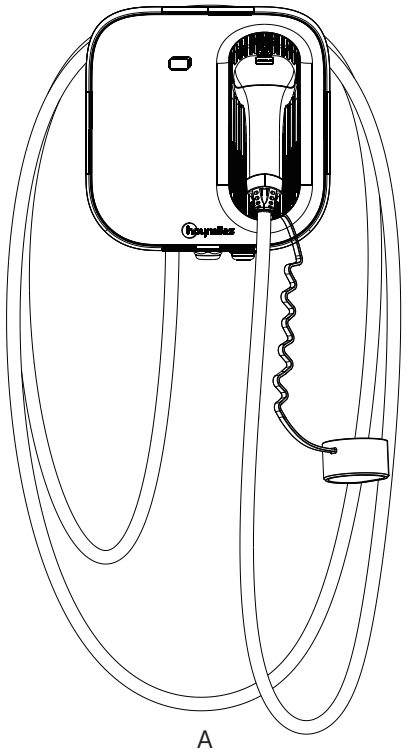
**⚠ CAUTION**

- Ensure that the wall has sufficient bearing capacity.
- Qualified personnel must wear personal protective equipment (PPE) during installation and maintenance.
- When installing underground cables for public EV charger networks, take care to avoid damaging existing underground utilities.
- Always consult the electricity transmission licensee before any excavation work (for structures, cables, grounding systems, etc.) to prevent damage to their underground cables.

## 4.1 Unpacking

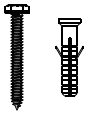
After receiving the product, carefully unpack the package which may be reused for storage or other usages, and check the following items to ensure the things you receive are intact and complete.

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



A

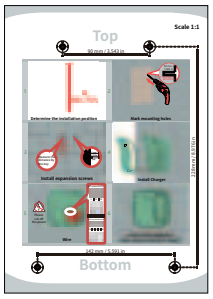
B



C

D


E

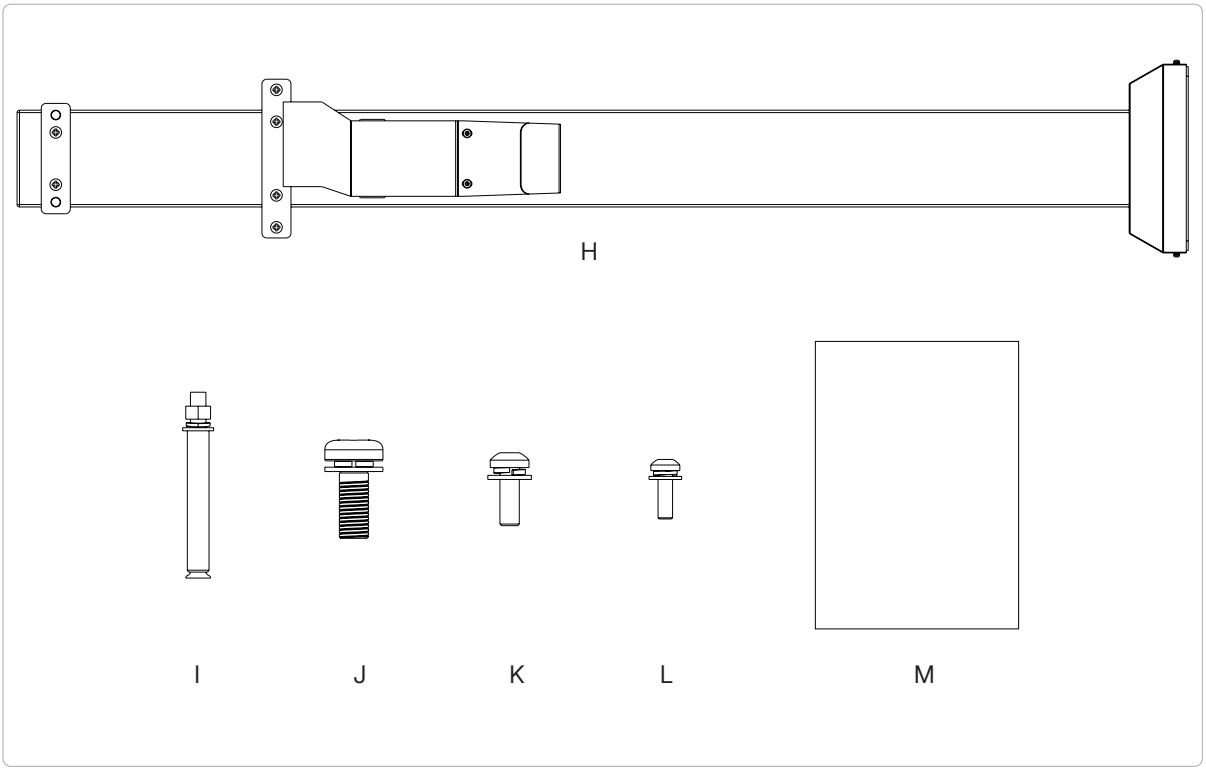



F


G

| Item | Description |
|---|---|
| A | EV Charger*1 |
| B | Cover Key*1 |
| C | Self-tapping Screw M6*50*5 (1 for standby)<br>Anchor Φ8*40*5 (1 for standby) |
| D | Sealing Ring*1 |
| E | RFID Card*2 |
| F | Positioning Cardboard*1 |
| G | Certificate*1 |

If you want to install the EV Charger on the pole, please purchase it separately.



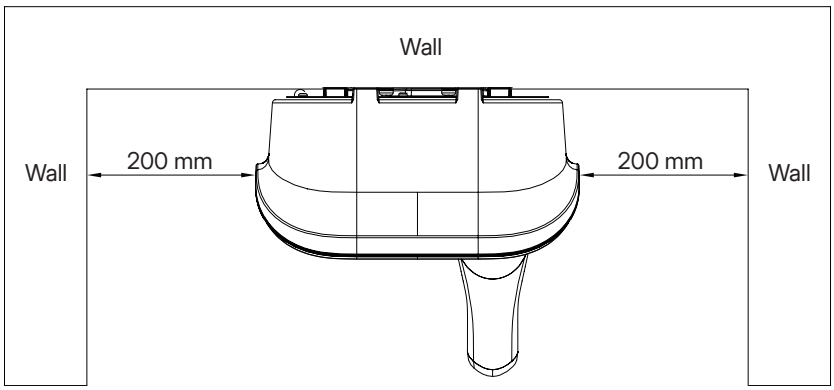

| Item | Description |
|---|---|
| H | Pole*1 |
| I | Expansion Screw M10*120*4 |
| J | Cross Screw M6*16*1 (for standby) |
| K | Torx Screw M4*12*1 |
| L | Torx Screw M3*10*1 |
| M | Installation Guide*1 |

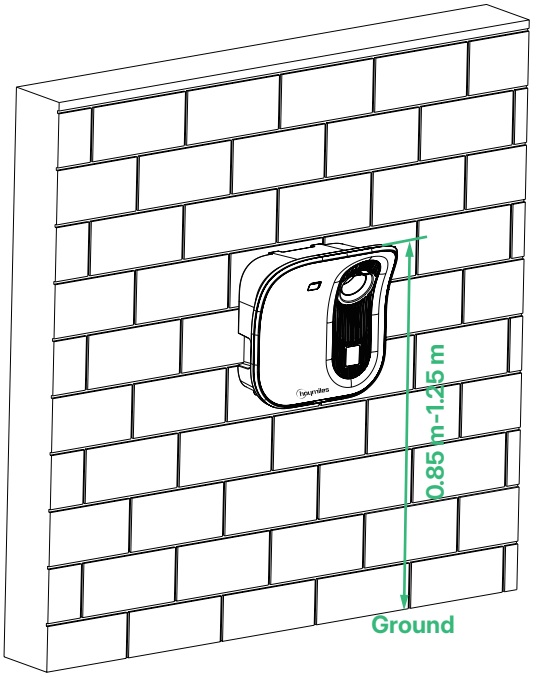
## 4.2 Environmental Requirements

- The installation place should be protected by shelter from direct sunlight or bad weather, such as snow, rain, or lightning.
- The product should be installed on a solid surface that is suitable for its dimensions and weight.
- The product should be installed vertically or at a maximum back tilt of 15° (wall mounting).
- The product should be installed in an environment with good ventilation and heat dissipation conditions.
- The product should be installed at eye level for convenient maintenance.
- The product should be installed far from corrosive and flammable materials.
- The relative humidity should be between 5% and 95%, without condensing.
- The operating temperature should be between -30°C and 50°C.
- The altitude should be no more than 3000 m.
- The dust level should be no more than 1 mg/$m^3$.

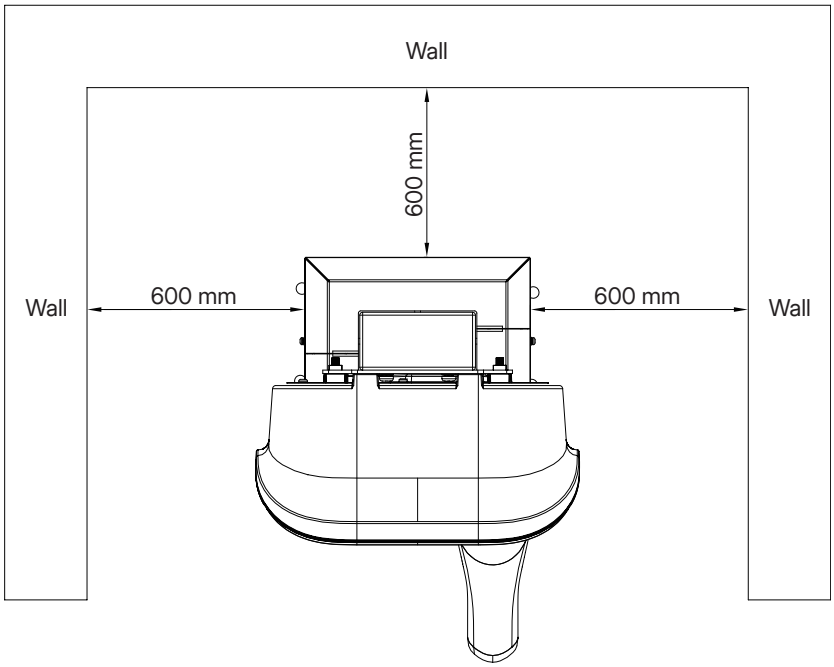
## 4.3 Space Requirements

**Wall mounting**



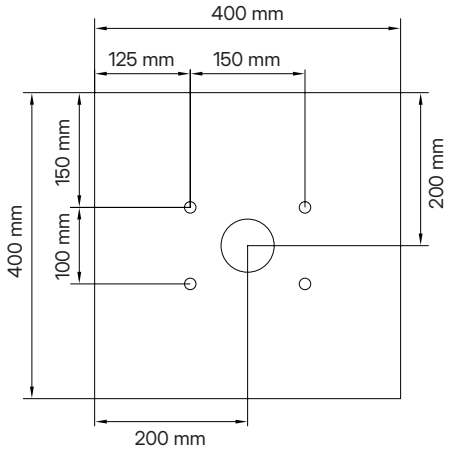
**Pole mounting**

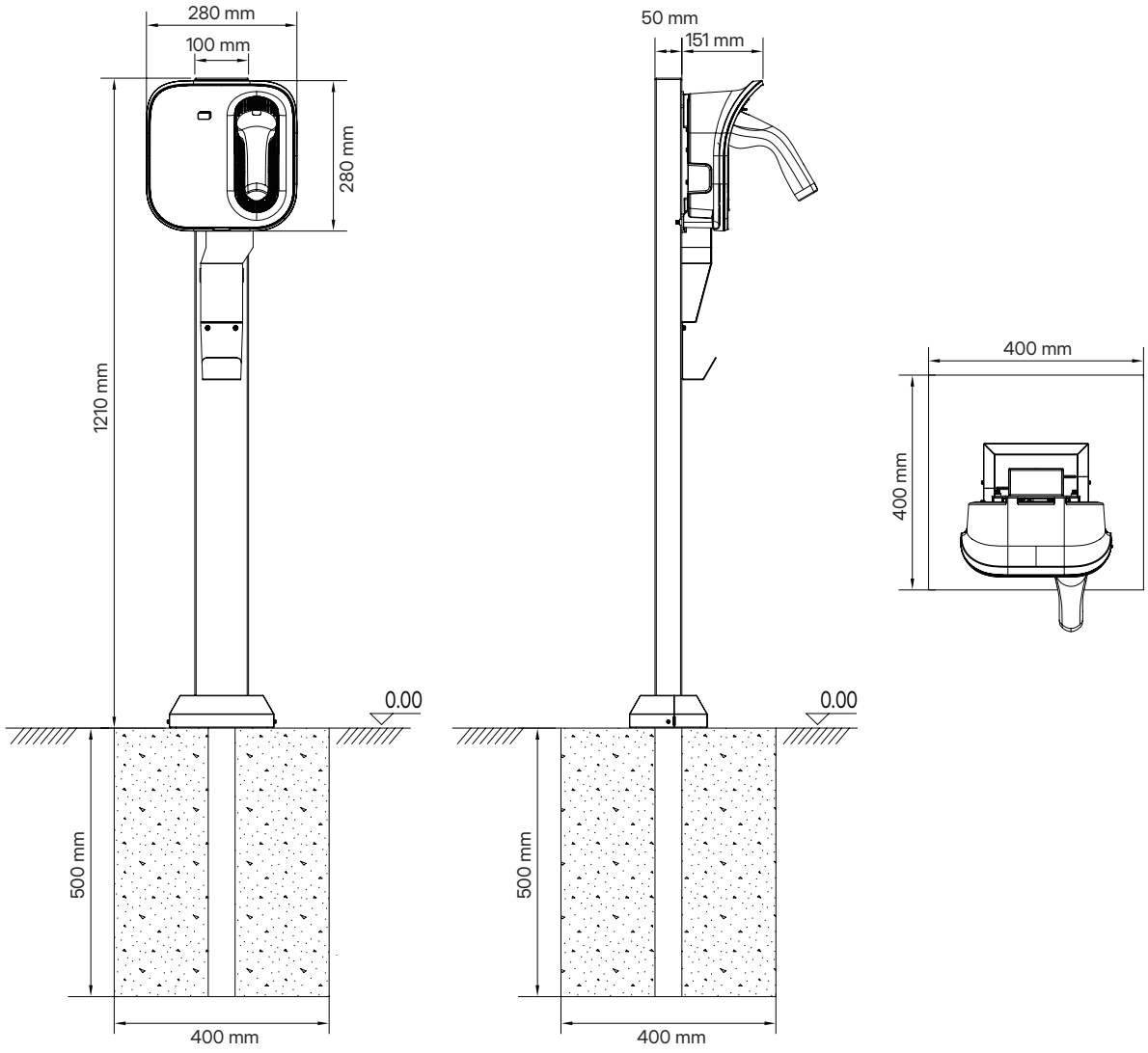



## 4.4 Concrete Foundation (Optional)

In the absence of a suitable existing mounting location for a pole mounting EV charger, constructing a concrete foundation is recommended. The concrete foundation must be poured before the installation.

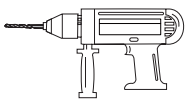
- Standard dimensions (unit: mm): 400 × 400 × 500 (depth: 500)
- Adjustable size based on customer requirements and site conditions.
- Ensure proper leveling during concrete pouring.
- The foundation should be installed higher than ground level, with appropriate space reserved for maintenance based on site conditions.
- The foundation must be filled with C20 concrete.
- Reserve an opening in the foundation for cable access.
- After pouring, use a spirit level to verify the level of foundation.
- Four M10 screws should be embedded in the concrete with 30 mm-40 mm exposed on the top surface.

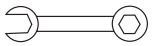




## 4.5 Installation Tools

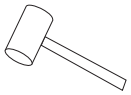
The following tools are recommended in the installation process, and other auxiliary tools can also be used on-site if necessary.


Hammer Drill

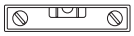

Combination Wrench

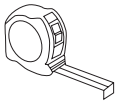

Electric Screwdriver


Screwdriver

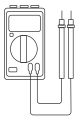

Hammer


Marker


Level


Tape Measure


Electrician Knife


Multimeter


Wire Stripper


Network Cable Crimper


Pin Terminal Crimping Tool


Ring Terminal Crimping Tool


Drill Bit


Torque Wrench

Personal Protective Equipment (PPE)


Protective Goggles


Dust Mask


Safety Gloves

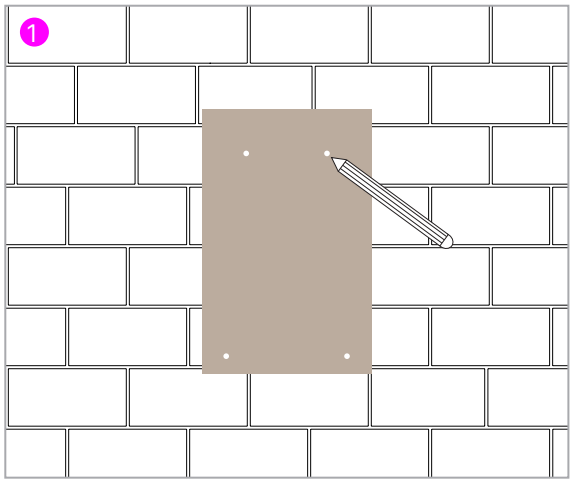

Safety Shoes

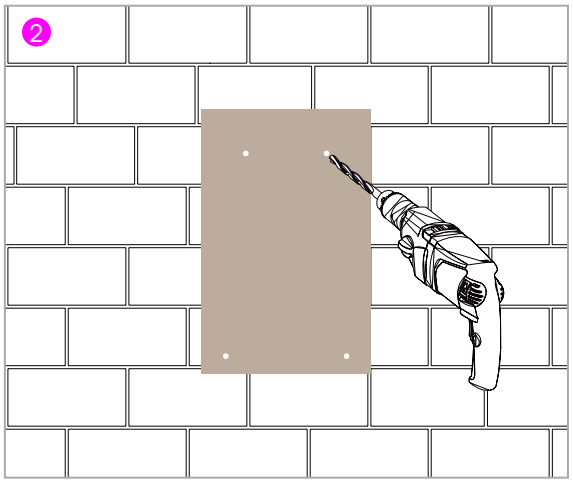
# 4.6 Installation Steps

## 4.6.1 Wall Mounting Steps

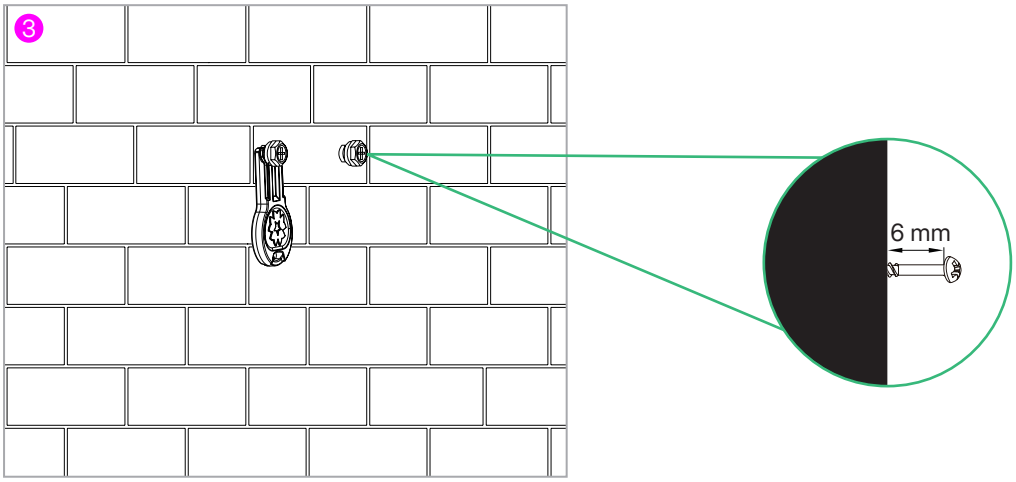
**Step 1** Mark the installation position and 4 holes with a marker and positioning cardboard. The top of the EV charger should be at least 0.85 m above the ground.

**Step 2** Drill 4 holes with a diameter of 8 mm and a depth of 50 mm on the wall using a hammer drill.



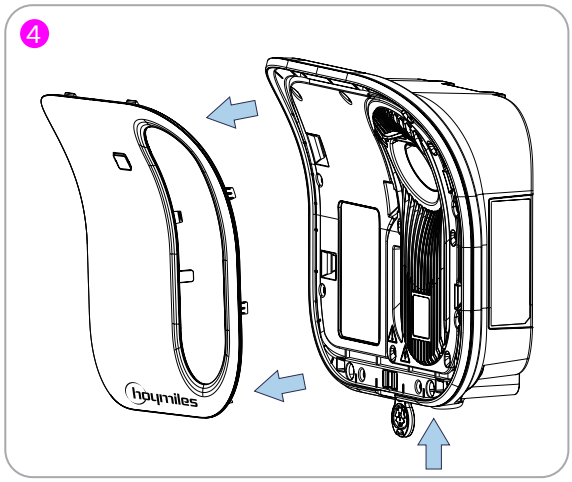



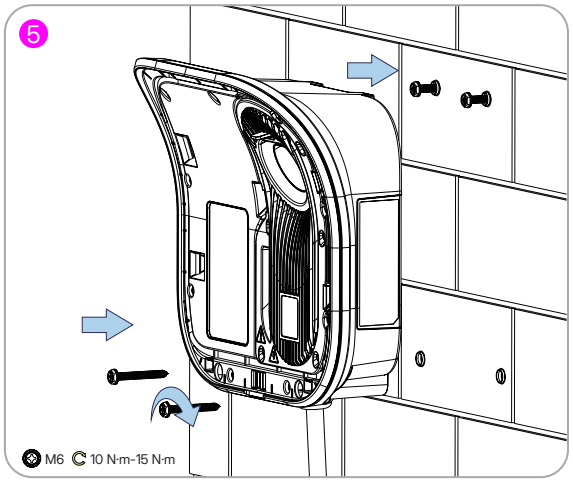

**Step 3** Place the anchors in 4 holes and put the self-tapping screws into the top two anchors. (The top two self-tapping screws flange end distance is reserved about 6 mm from the wall, and the cover key can be used to adjust the distance.)




**Step 4** Remove the decorative cover of the EV charger with the cover key.

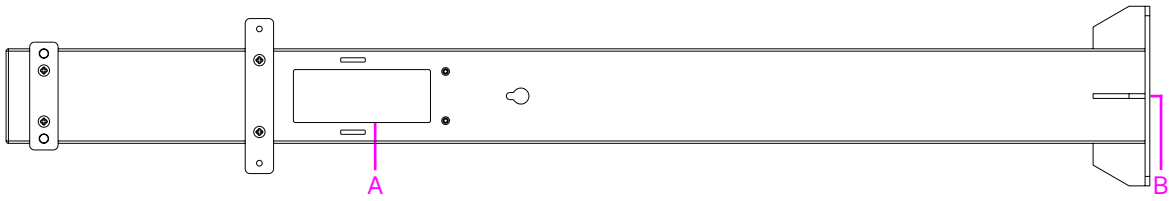
**Step 5** Hang the charger on the top two screws, and insert the two self-tapping screws at the bottom through the front mounting hole of the charger to fix it.



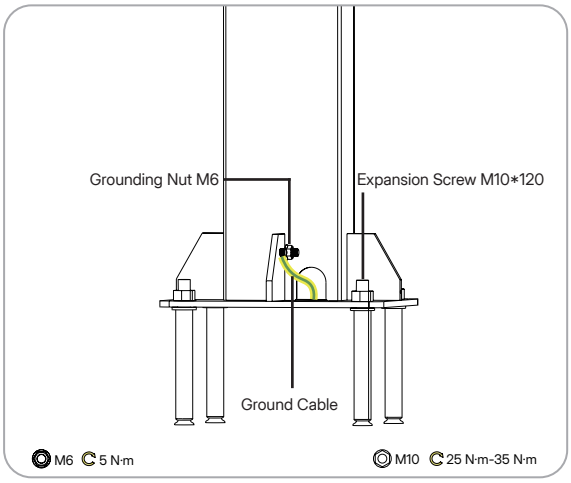
## 4.6.2 Pole Mounting Steps

**Step 1** Remove the trim cover and cable holder from the pole. Lay the pole flat on the ground. Route the power cable through the designated inlet and outlet holes.



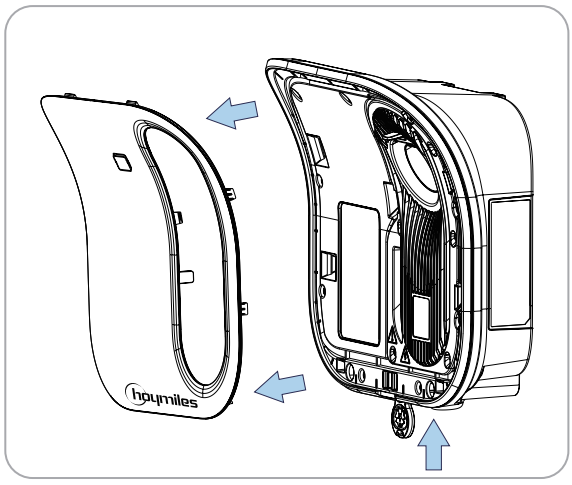

| Item | Description |
|---|---|
| A | Cable Outlet Hole |
| B | Cable Inlet Hole |

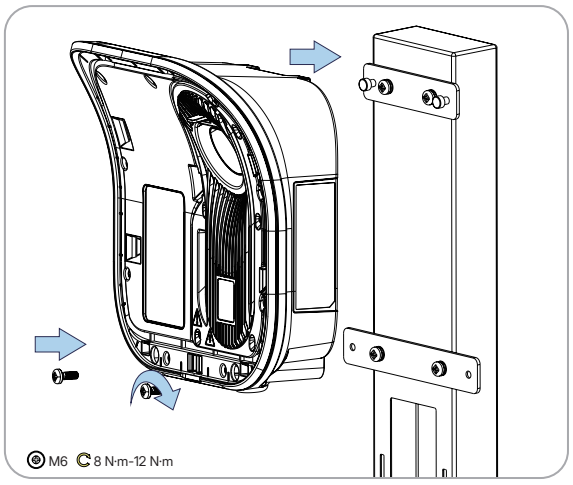
**Step 2** Fix the pole to the ground using M10 expansion screws with a torque between 25 N·m and 35 N·m, and tighten the M6 grounding nut with a torque of 5 N·m.




**Step 3** Remove the decorative cover of the EV charger with the cover key.

**Step 4** Hang the charger on the top two screws, and then install the two screws at the bottom through the front mounting hole of the charger to fix it.



# 5 Electrical Connection

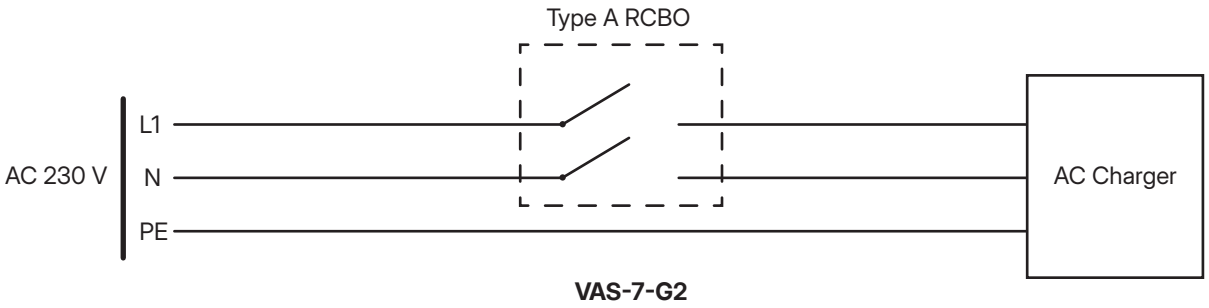
**⚠ WARNING**

The power cable must be connected directly to a dedicated Type A RCBO (Residual Current Operated Circuit-breaker with Integral Overcurrent protection) or MCB+ Type A RCD (Residual Current Devices) in the distribution box. The RCBO/RCD capacity should match the charging cable size.

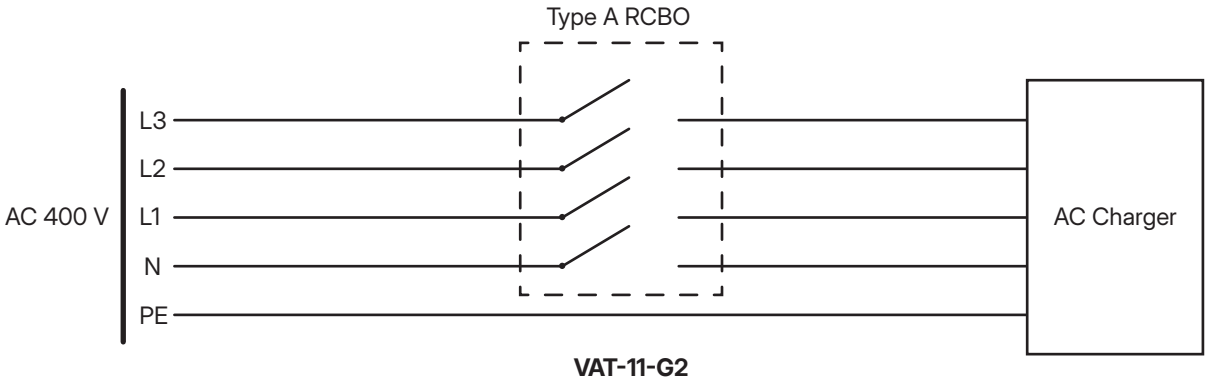
**NOTICE**

- All electrical connections must be in accordance with local and national standards.
- Do not attempt to repair the EV charger yourself, and this document contains no instructions for user-serviceable parts.

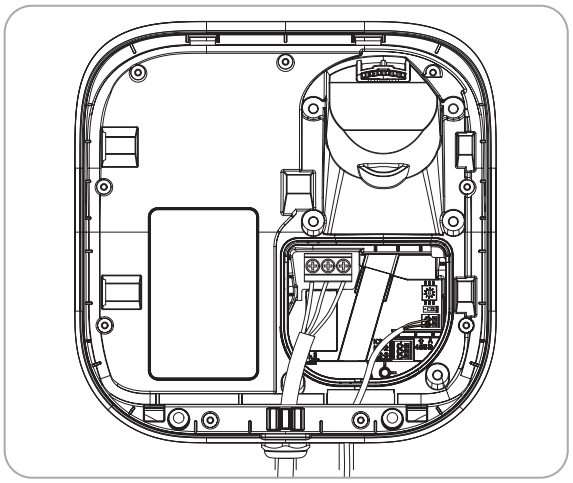
## 5.1 VAS-7-G2/VAT-11-G2



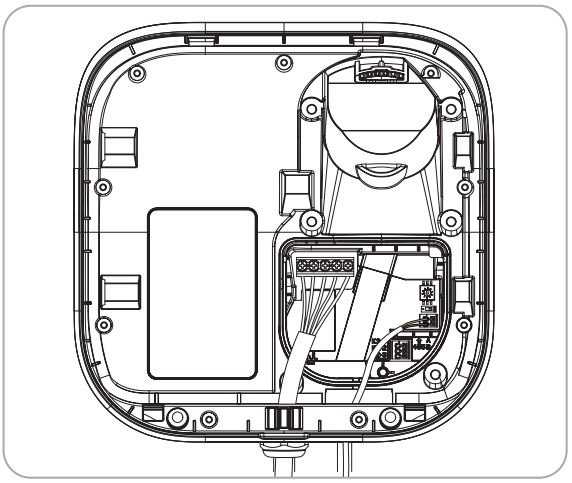

**VAS-7-G2**




**VAT-11-G2**



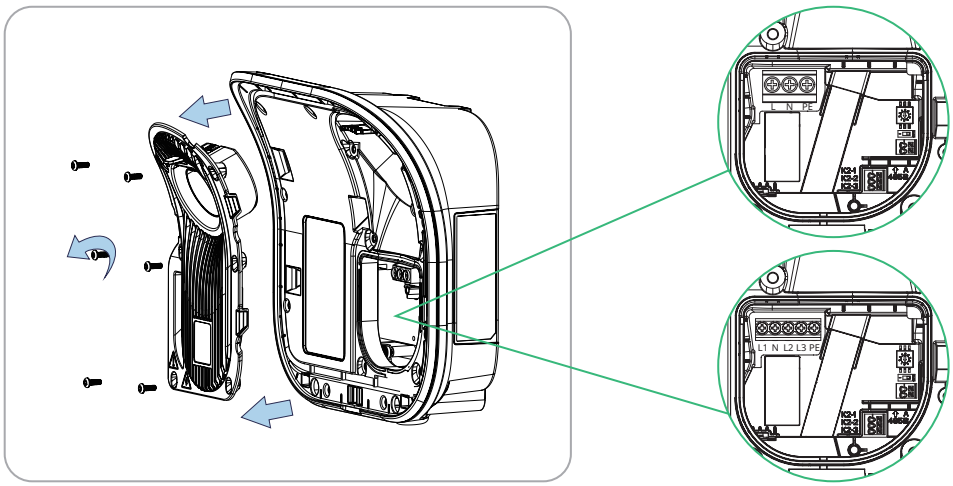
**VAS-7-G2**

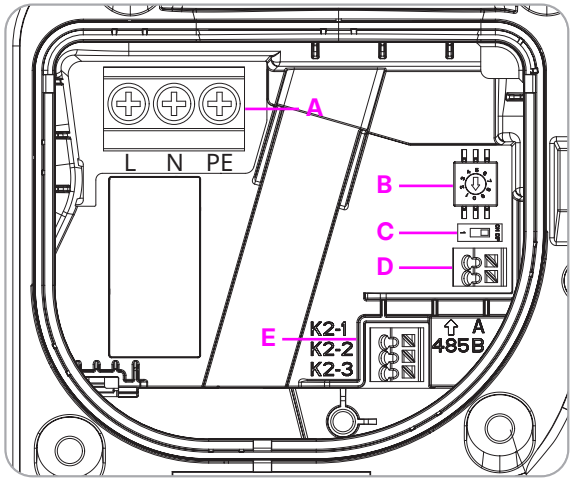


**VAT-11-G2**

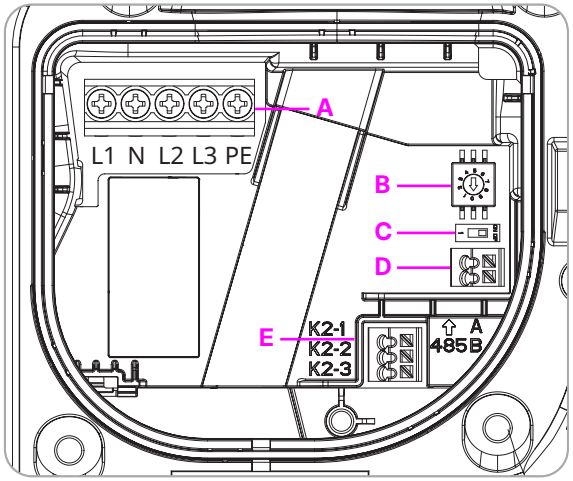
### 5.1.1 Removing Charging Connector Holder

Remove the 6 screws connecting the charging connector holder, remove the charging connector holder, and prepare to connect the power cable.






VAS-7-G2



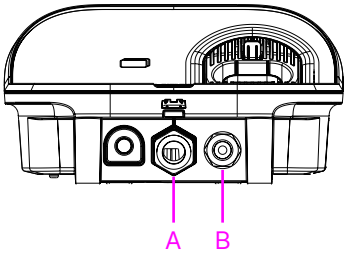

VAT-11-G2

| Item | Description |
|---|---|
| A | AC Terminals |
| B | Rotary Switch |
| C | DIP Switch |
| D | RS485 Terminals |
| E | Relay Terminals (Dry Contact)<br>(K2-1 COM, K2-2 NO, K2-3 NC) |

**NOTE**

- The power cable hole and communication cable hole are at the bottom of the EV charger.
- The power cable hole is equipped with an M25 gland, which is suitable for cables with a diameter of 13 mm-18 mm.
- The communication cable hole is equipped with an M20 gland. The diameter of the communication cable should be 4 mm-7 mm.

**NOTE**




| Item | Description |
|---|---|
| A | M25 Gland |
| B | M20 Gland |

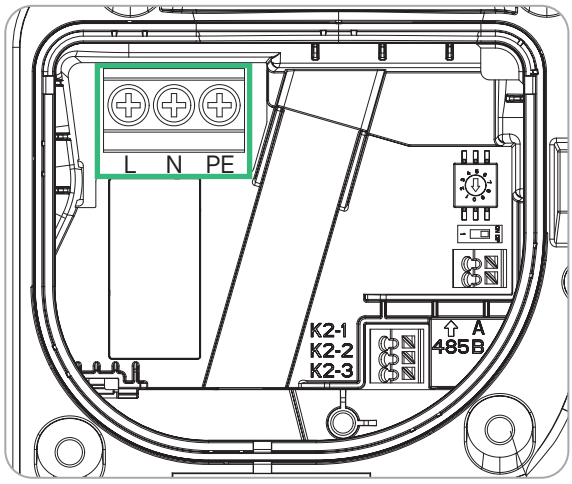
## 5.1.2 Connecting Power Cables

| Model | Recommended Cable Specification (Copper) | Recommended Circuit Protection |
|---|---|---|
| VAS-7-G2 | Three-core cable<br>Cross-sectional area: 6 $mm^2$/10 $mm^2$<br>Outer diameter: 13 mm-18 mm | Type A RCBO or MCB + Type A RCD,<br>Ue=230 V, In=40 A, I△n=(30 mA), 2P |
| VAT-11-G2 | Five-core cable<br>Cross-sectional area: 2.5 $mm^2$ /4 $mm^2$<br>Outer diameter: 13 mm-18 mm | Type A RCBO or MCB + Type A RCD,<br>Ue=400 V, In=40 A, I△n=(30 mA), 4P |

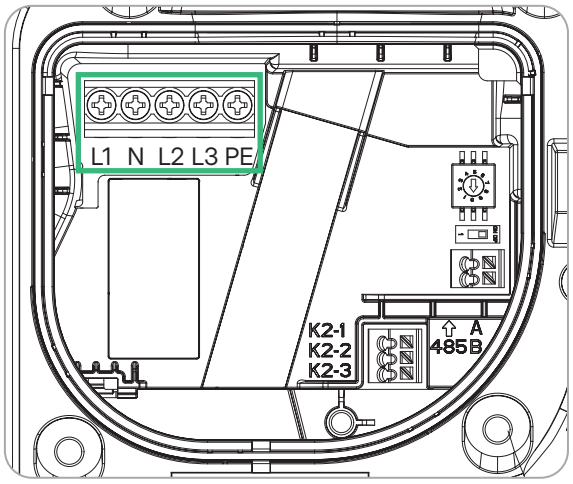
**NOTE**

- A flexible cable is recommended for a wall mounting EV charger.
- If the power cable is a flexible conductor, it is recommended to use ferrules on stranded wires.
- For VAS-7-G2, the cable cross-sectional area should be not less than 6 $mm^2$. If using a 6 $mm^2$ or 10 $mm^2$ flexible cable, correspondingly, a KST E6012 or KST E10-12 pin-type terminal (or equivalent) is recommended.
- For VAT-11-G2, the cable cross-sectional area should be not less than 2.5 $mm^2$. If using a 2.5 $mm^2$ or 4 $mm^2$ flexible cable, correspondingly, a KST E2512 or KST E4012 pin-type terminal (or equivalent) is recommended.

Use proper crimping tools to crimp the cable and terminal, connect the cable to the corresponding terminals of the EV Charger, and gently pull the cables backward to ensure that they are firmly connected.

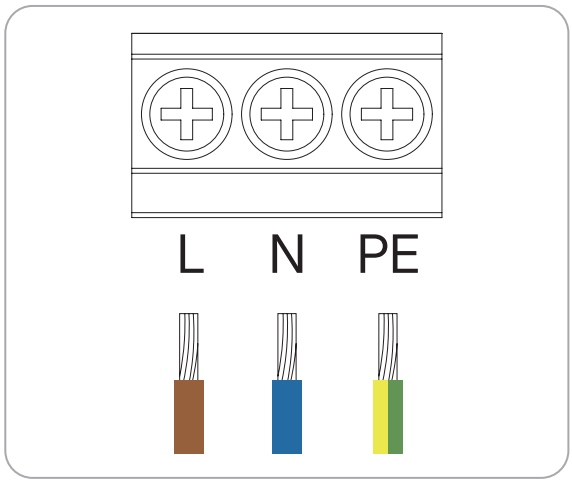



VAS-7-G2

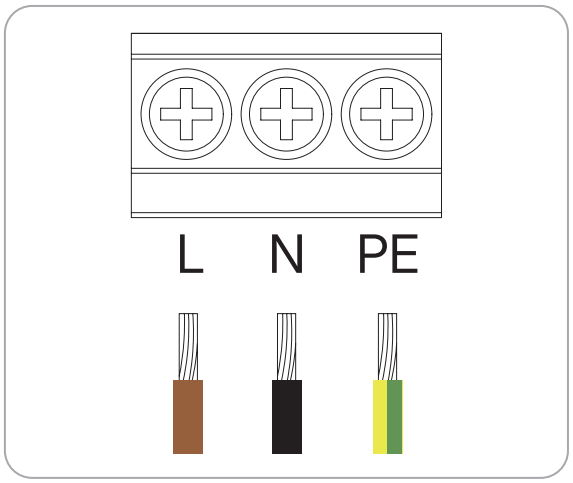



VAT-11-G2

### Single-phase

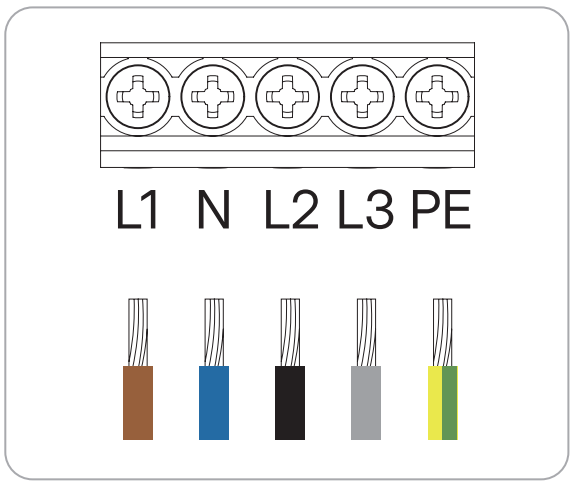



TN/TT

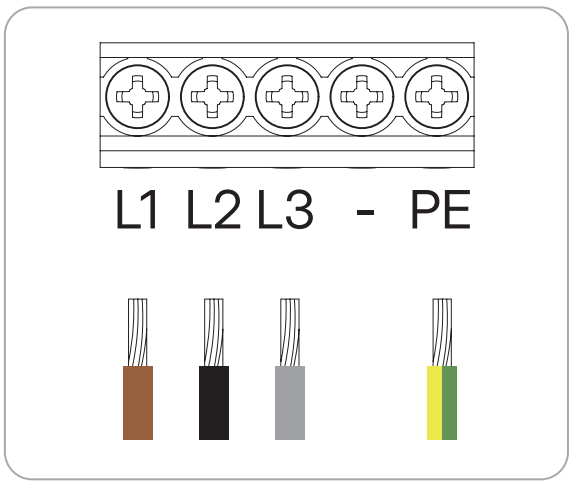



IT

### Three-phase




TN/TT




IT

**NOTE**

While this document uses illustrations based on the IEC 60446 standard for wire color coding, national standards may vary. Always follow the existing color codes used in your specific installation.

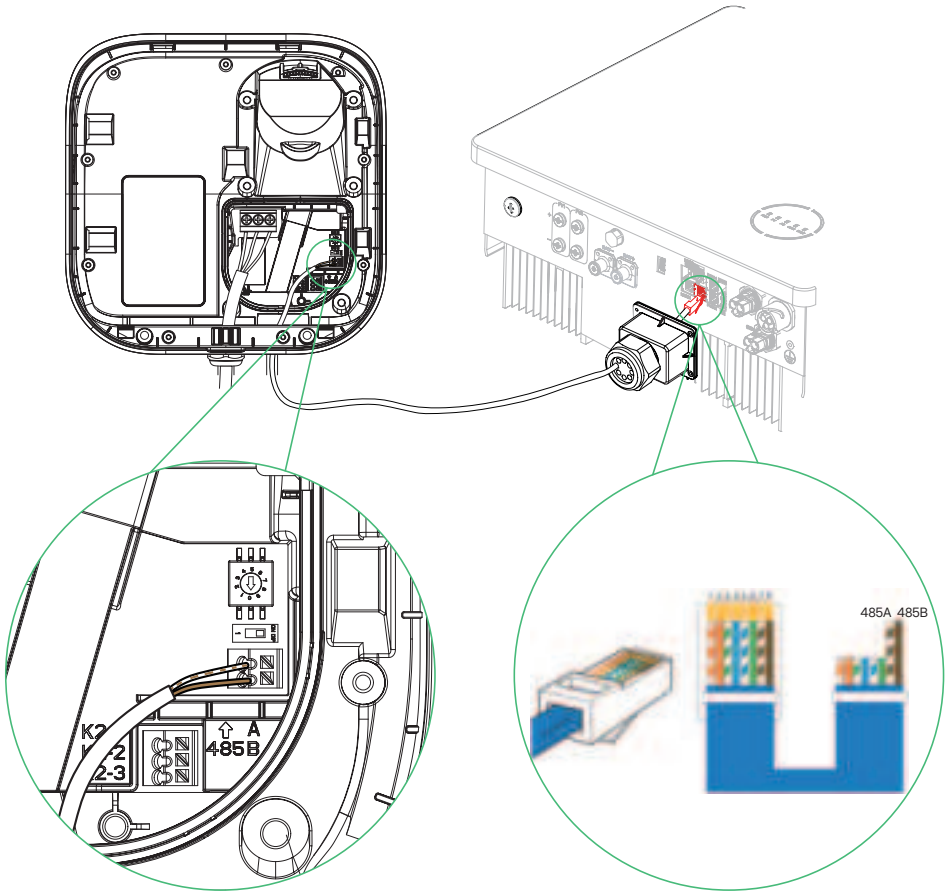
## 5.1.3 Connecting Communication Cable

### Wiring One

Respectively connect the RS485A terminal and RS485B terminal of the EV charger to the BMS terminal (485A, 485B) of Hoymiles energy storage inverter.

**NOTE**

- For HYS-(3.0-6.0)LV-EUG1, HAS-(3.0-5.0)LV-EUG1, HYT-(5.0-12.0)HV-EUG1, HAT-(5.0-10.0)HV-EUG1, and HYS-(8.0-12.0)LV-EUG2 series inverters, if a battery and an EV charger are connected to the inverter simultaneously, an RJ45 coupler should be used. This is necessary because both the communication cable of the battery and the communication cable of the EV charger need to be connected to the BMS terminal of the inverter.
- The RJ45 coupler is not included in the packing list and must be purchased separately through a third-party channel.

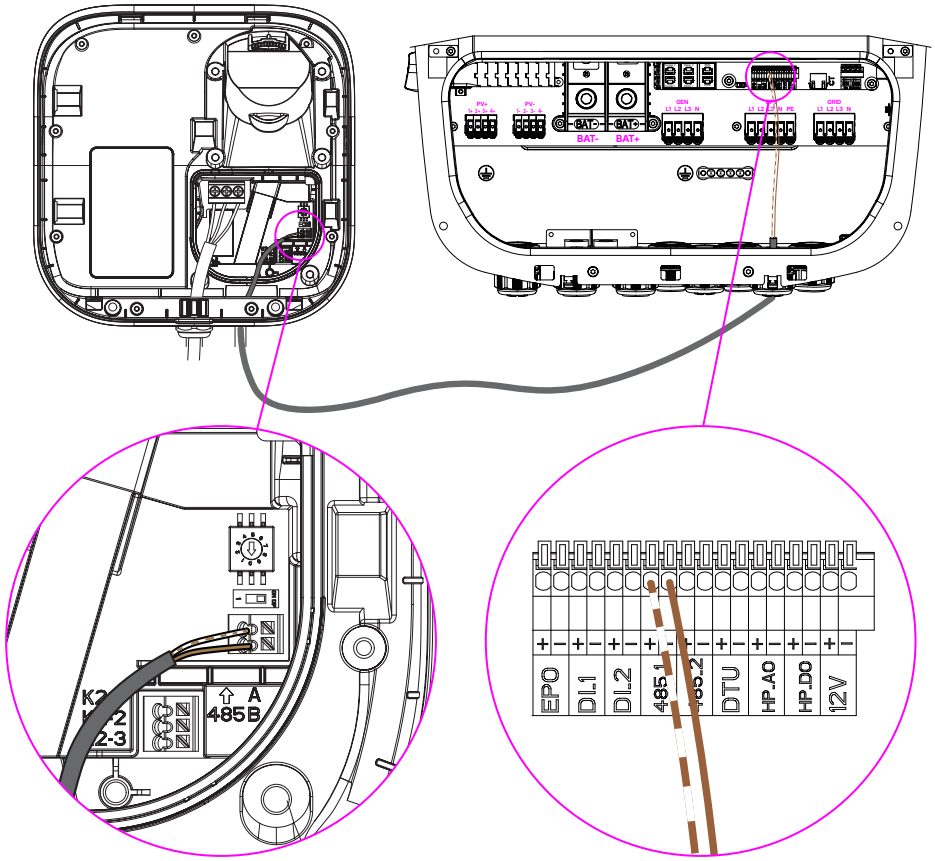


### Wiring Two

**NOTE**

This is applicable to HIT-(5-20)L-G3 series inverter.

Respectively connect the RS485A terminal and RS485B terminal of the EV charger to the RS485_1+ terminal and RS485_1- terminal of Hoymiles energy storage inverter.

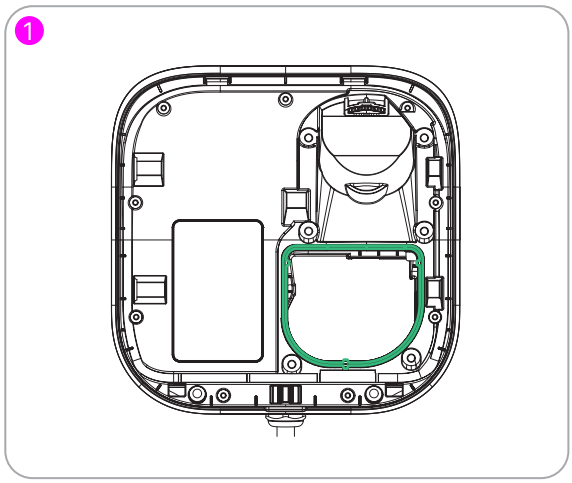


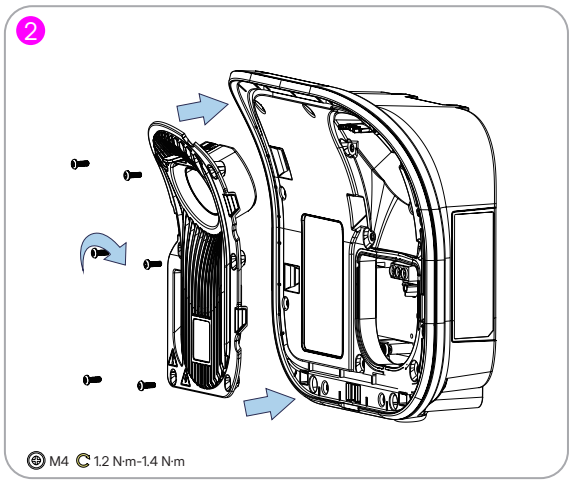

## 5.1.4 Completing the Installation

### Wall mounting

**Step 1** Ensure the sealing rubber strip of the wiring area is properly installed.

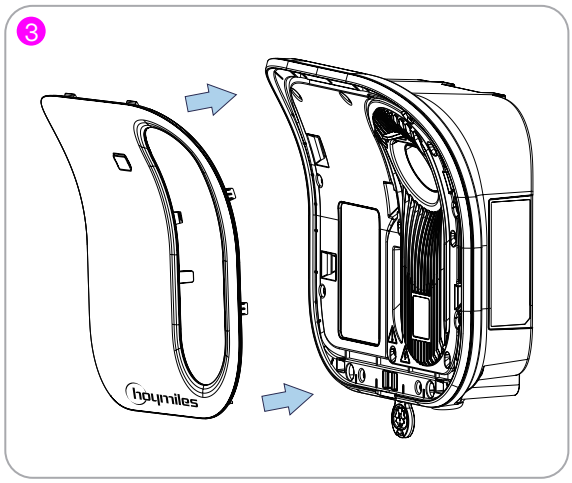
**Step 2** Install the charging connector holder and tighten the 6 screws.

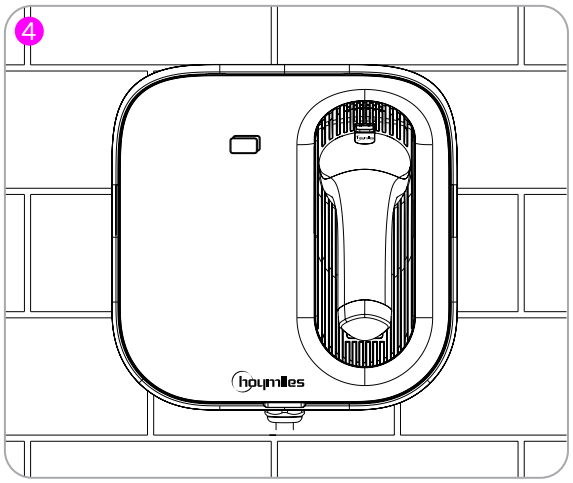


**Step 3** Install the decorative cover.

**Step 4** Insert the charging connector into the charging connector holder.

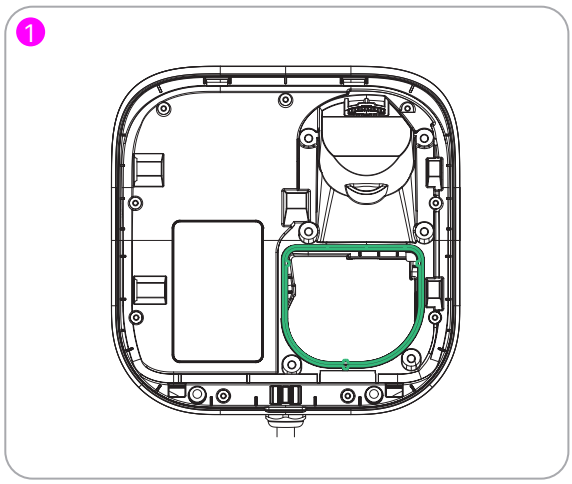


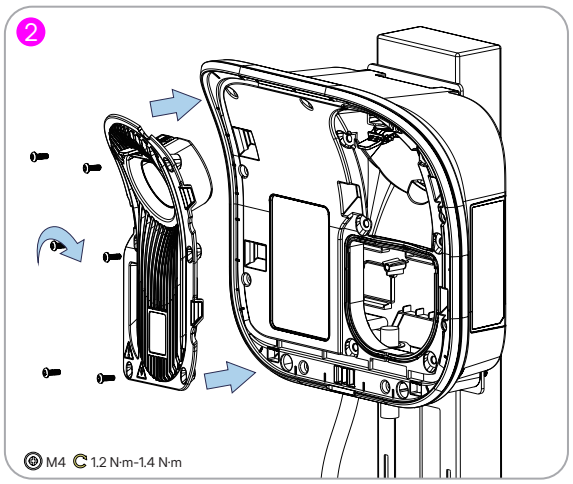




### Pole mounting

**Step 1** Ensure the sealing rubber strip of the wiring area is properly installed.

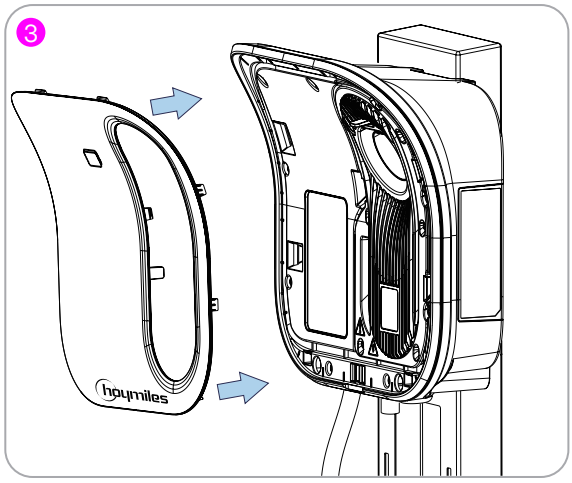
**Step 2** Install the charging connector holder and tighten the 6 screws.

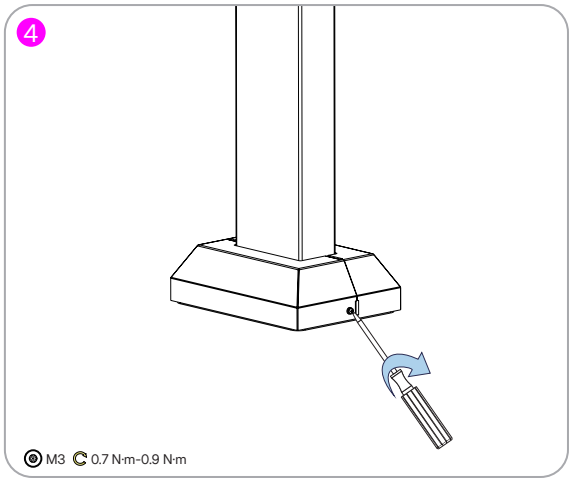


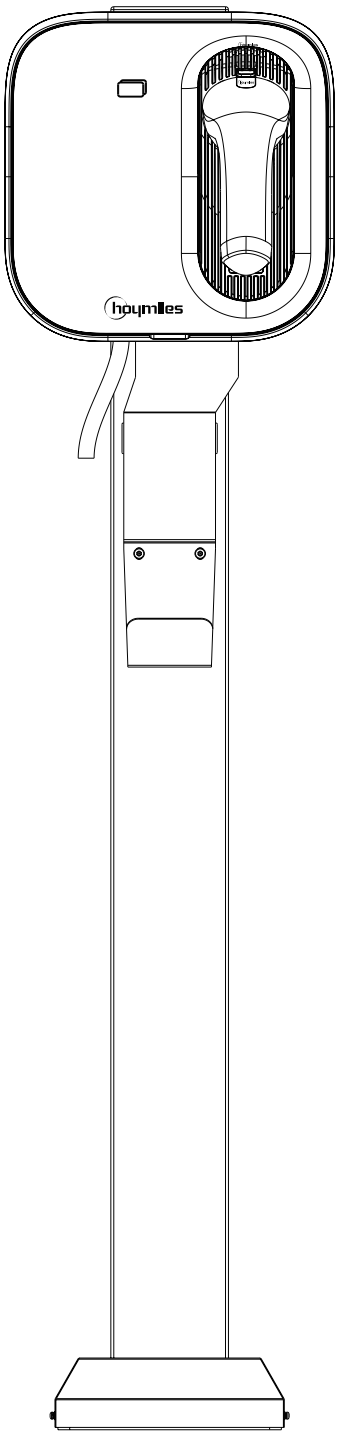




**Step 3** Install the decorative cover and insert the charging connector into the charging connector holder.

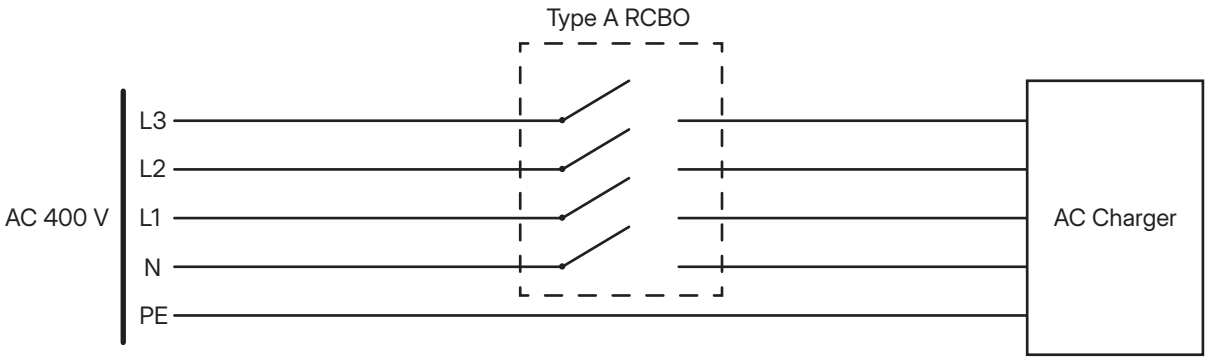
**Step 4** Install the cable holder and trim cover.

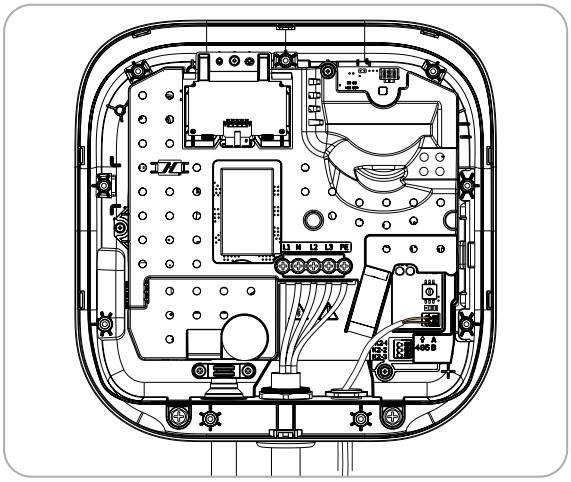




## 5.2 VAT-22-G2

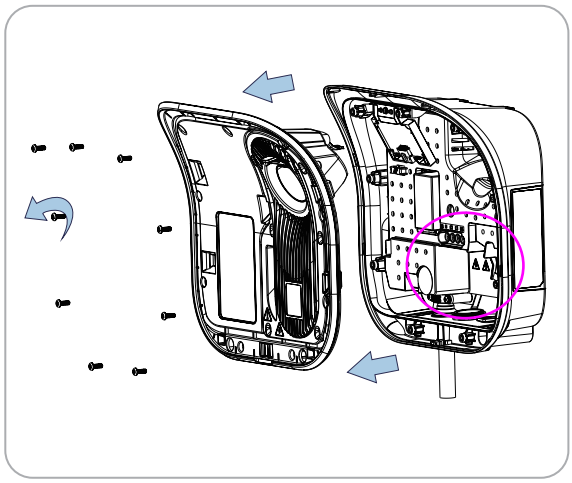


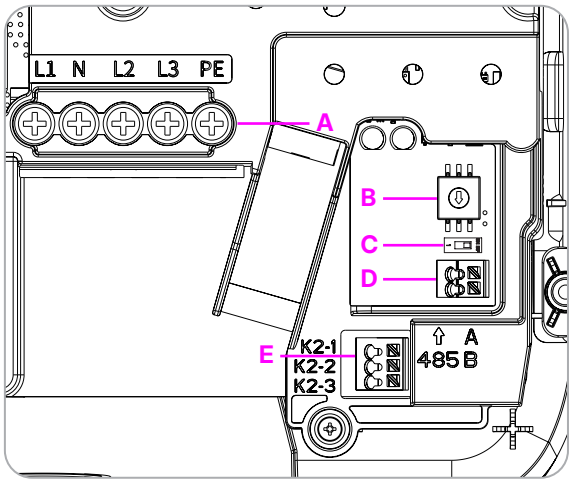



VAT-22-G2

### 5.2.1 Removing the Front cover

Unscrew the 9 screws connecting the front cover and the rear housing, and remove the front cover.

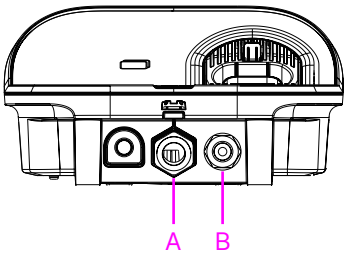





| Item | Description |
|---|---|
| A | AC Terminals |
| B | Rotary Switch |
| C | DIP Switch |
| D | RS485 Terminals |
| E | Relay Terminals (Dry Contact)<br>(K2-1 COM, K2-2 NO, K2-3 NC) |

**NOTE**

- The power cable hole and communication cable hole are at the bottom of the charger.
- The power cable hole is equipped with an M32 gland, which is suitable for cables with a diameter of 18 mm-25 mm. If the power cable diameter is less than 18 mm, the sealing ring inside the gland can be replaced with a smaller size sealing ring to achieve waterproof effect, the smaller size sealing ring is included in the accessory package.
- The communication cable hole is equipped with an M20 gland. The diameter of the communication cable should be 4 mm-7 mm.




| Item | Description |
|---|---|
| A | M32 Gland |
| B | M20 Gland |

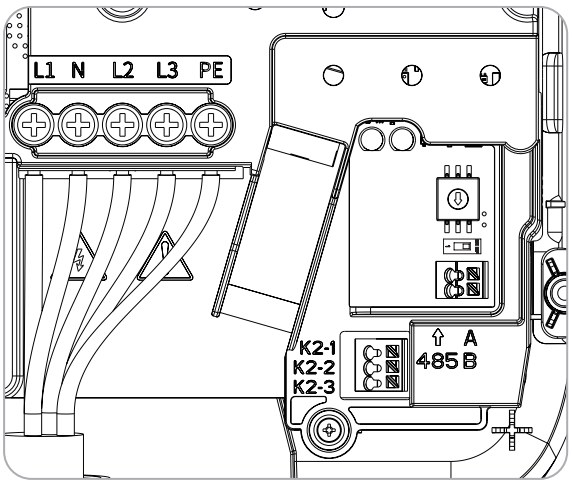
## 5.2.2 Connecting Power Cables

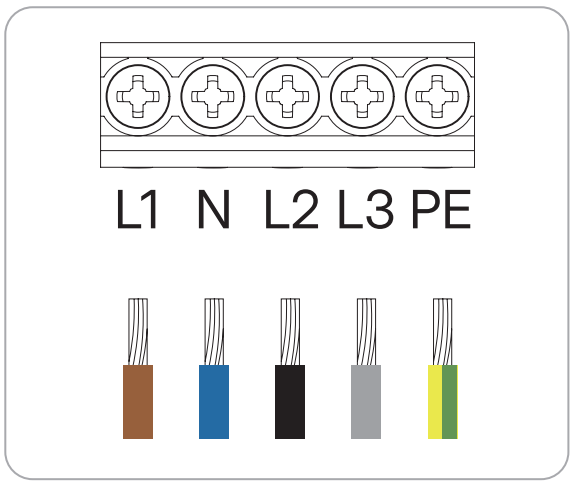
| Model | Recommended Cable Specification (Copper) | Recommended Circuit Protection |
|---|---|---|
| VAT-22-G2 | Five-core cable<br>Cross-sectional area: 6 $mm^2$/10 $mm^2$<br>Outer diameter: 18 mm-25 mm | Type A RCBO or MCB + Type A RCD,<br>Ue=400 V, In=40 A, I△n=(30 mA), 4P |

**NOTE**

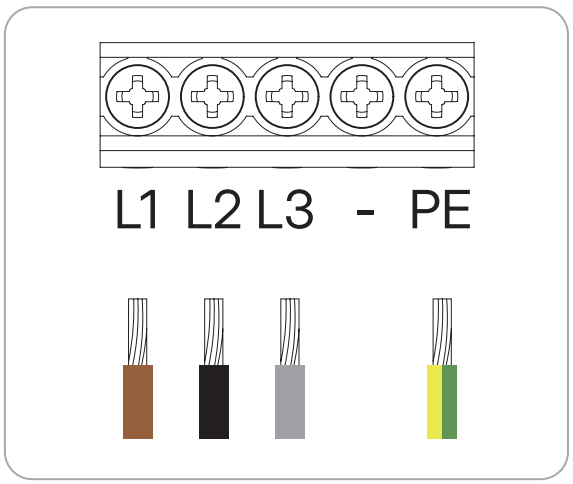
- A flexible cable is recommended for a wall mounting EV charger.
- If the power cable is a flexible conductor, it is recommended to use ferrules on stranded wires.
- For VAT-22-G2, the cable cross-sectional area should be not less than 6 $mm^2$. If using a 6 $mm^2$ or 10 $mm^2$ flexible cable, correspondingly, a KST E6012 or KST E10-12 pin-type terminal (or equivalent) is recommended.

Use proper crimping tools to crimp the cable and terminal, connect the cable to the corresponding terminals of the EV Charger, and tighten the gland (recommended torque: 5.5 N. m). Gently pull the cables backward to ensure that they are firmly connected.






TN/TT (230 V/400 V)




IT (230 V)

**NOTE**

While this document uses illustrations based on the IEC 60446 standard for wire color coding, national standards may vary. Always follow the existing color codes used in your specific installation.

## 5.2.3 Connecting Communication Cable

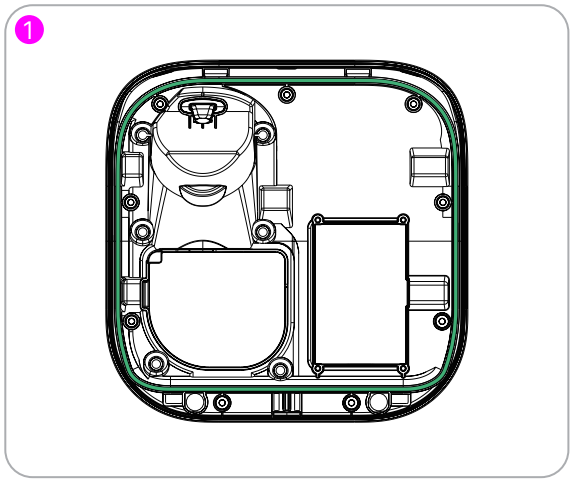
The connection method is the same as that described in ***5.1.3 Connecting Communication Cable***.

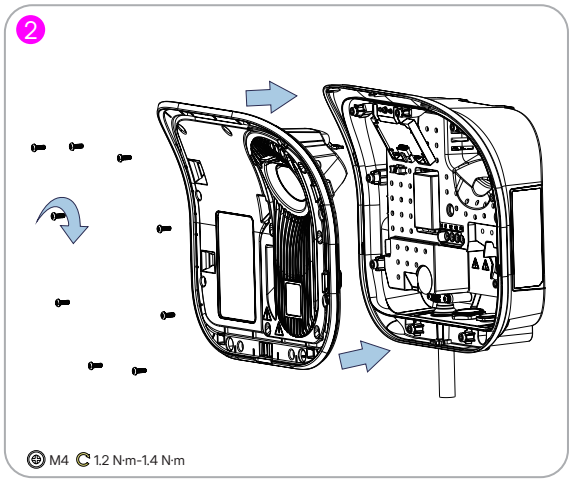
## 5.2.4 Completing the Installation

**Wall mounting**

**Step 1** Ensure the sealing rubber strip of the front cover is properly installed.

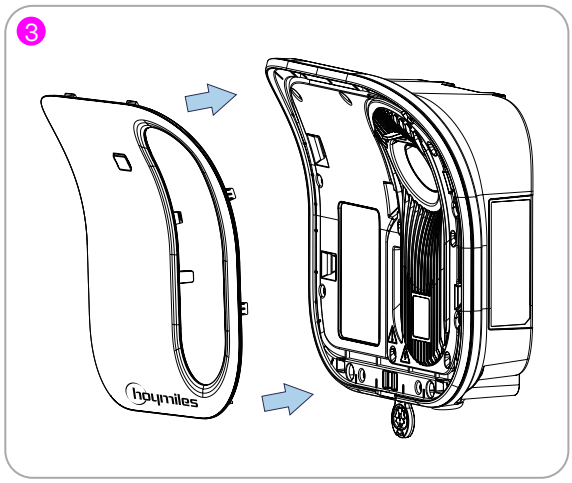
**Step 2** Install the front cover and tighten the 9 screws.

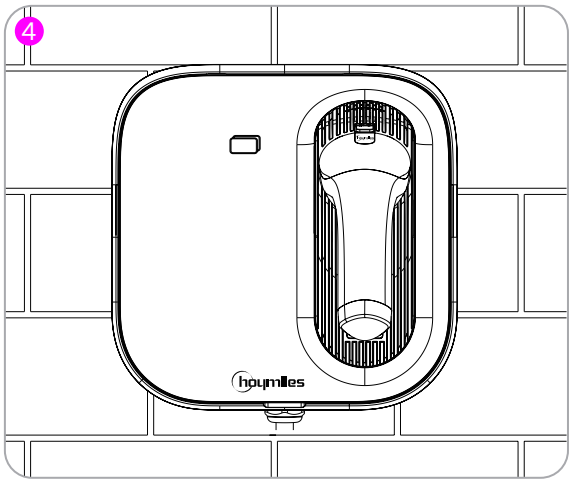


**Step 3** Install the decorative cover.

**Step 4** Insert the charging connector into the charging connector holder.

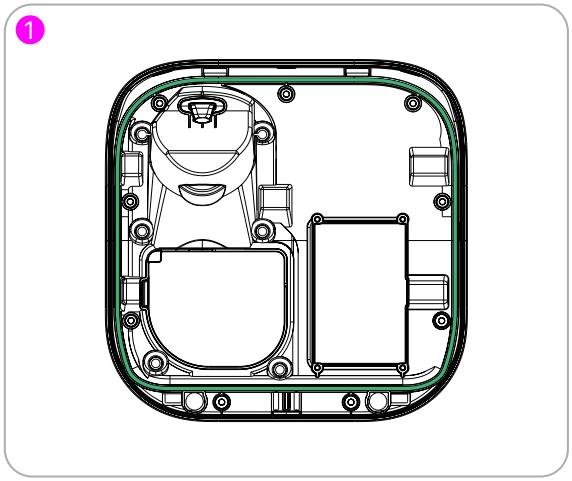


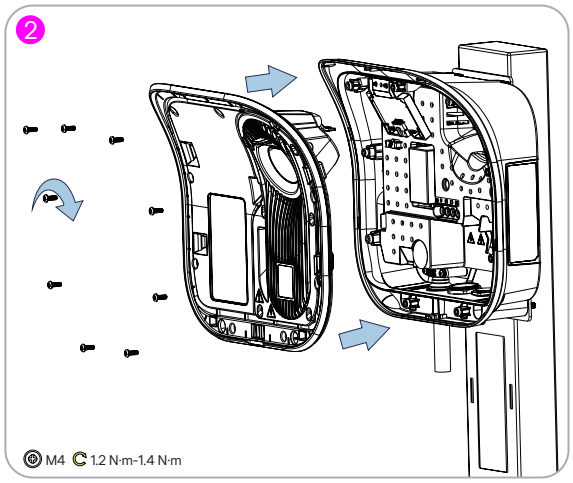




**Pole mounting**

**Step 1** Ensure the sealing rubber strip of the front cover is properly installed.

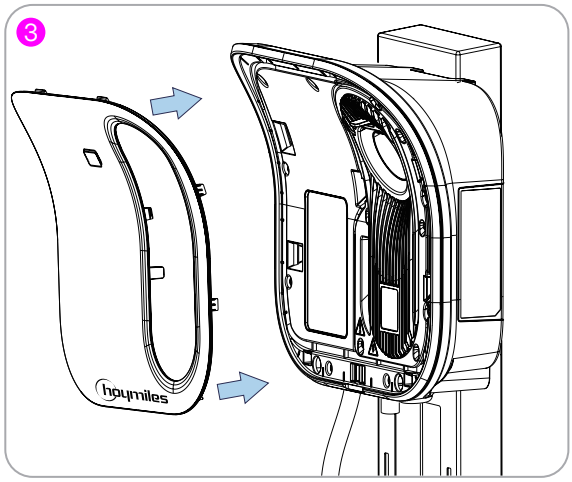
**Step 2** Install the inner decorative cover and tighten the 9 screws.

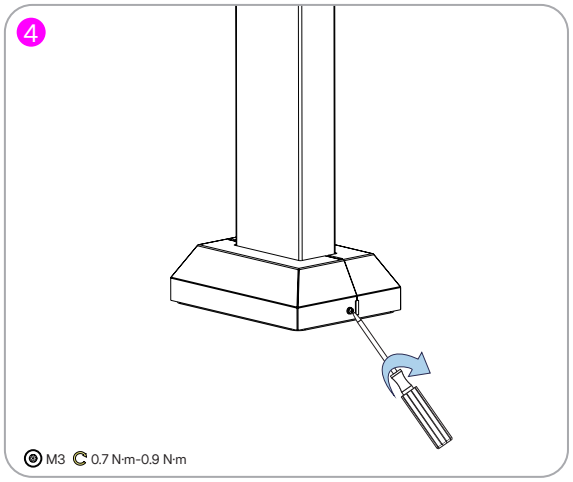


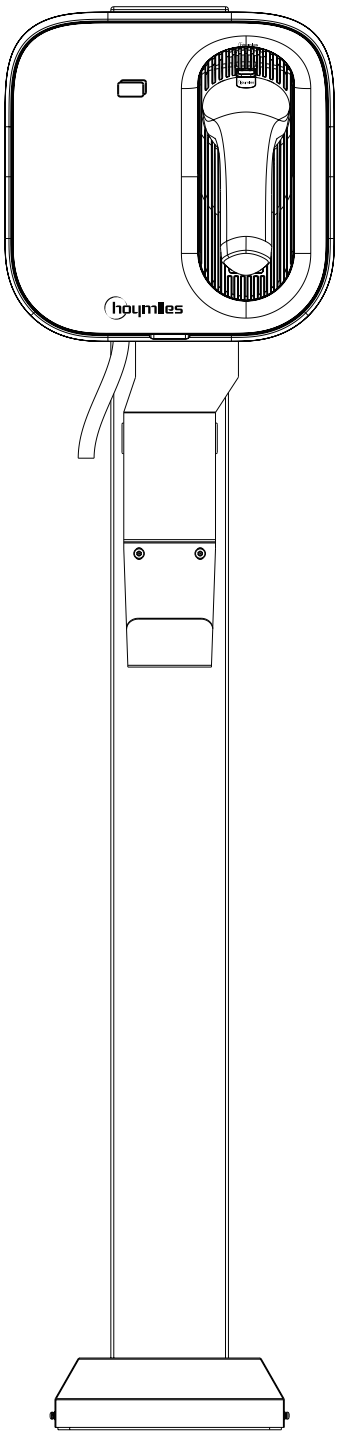




**Step 3** Install the decorative cover and insert the charging connector into the charging connector holder.

**Step 4** Install the cable holder and trim cover.





# 6 System Commissioning

## 6.1 Preparation

- Dispose of all shipping and packaging materials in accordance with local laws and regulations.
- Clean the charger and surrounding debris, such as small cables, straps, screws, etc.
- Do not leave the installation tools on site or in the charting station (record the type and quantity of tools to prevent omission).
- Wipe the insulation with an anti-static cloth. Do not use any corrosive solvents.
- Verify that the base is secure and properly sealed.
- Ensure all internal components of the device are securely fastened.
- Check if the protection level of the device meets the requirements, especially the cable inlet at the bottom of the device.
- Inspect the overall appearance, markings, completeness, and cleanliness.
- Verify that all screws and electrical connections are secure.
- Ensure all wires and data cables are properly connected.
- Measure the insulation resistance with a multimeter. It should be greater than 1 MΩ (1 megohm).
- Before activating the charger'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 230 V.

## 6.2 System Power-on

Turn on the power, and wait until the LED indicators turn green.

**NOTE**

If you want to view information about the EV charger, start and stop charging through the App, or change the charging mode, please download and log in to the S-Miles App. Detailed operation instructions are shown in ***Z S-Miles Cloud***.

# 7 S-Miles Cloud

The S-Miles App has been developed for Hoymiles and offers the following features.

a. Network configuration;

b. Local installation assistant;

c. System monitoring.

S-Miles Installer S-Miles End-user

Please download the S-Miles App from the Google Play Store or the App Store. The QR code above can also be scanned to download the App.

**NOTE**

- The DTU mentioned in this manual refers to the DTS (Data Transfer Stick).
- In a residential energy storage system, the DTU displayed in the S-Miles Cloud refers to the DTS (Data Transfer Stick).
- The screenshots (Version 3.2.1) shown in this manual are for reference only. Since the App version will be updated periodically, the interface displayed on your screen may differ.

## 7.1 Connect to the DTS

### 7.1.1 DTS-G1

**NOTE**

The steps about the password are only required for the first connection.

**Step 1** Tap **O&M** > **Toolkit**.

**Step 2** Tap **Via Wi-Fi** area.

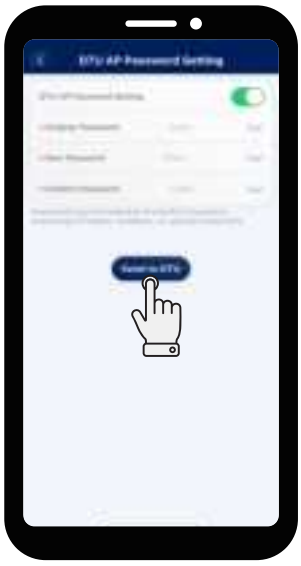
**Step 3** Tap **Go to set**.

**Step 4** Select the wireless network of DTS and enter the default password **ESS12345**. The DTS network name consists of “DTS” and the last eight digits of the product serial number.

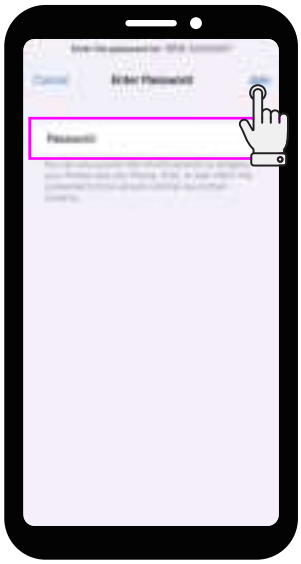
**Step 5** Return to the App.

**Step 6** Tap **Go to Settings** to change the default password to a new one.

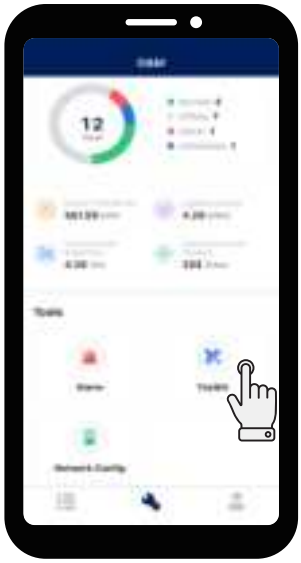
**Step 7** Enter the original password and new password, confirm the new one, and tap **Send to DTU**.

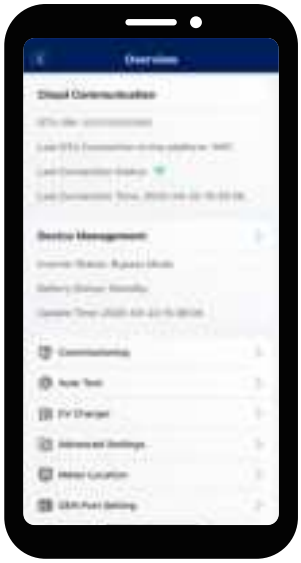


**Step 8** Select the wireless network of DTS and enter the new password.



**Step 9** Return to the App, and tap **Toolkit** again.





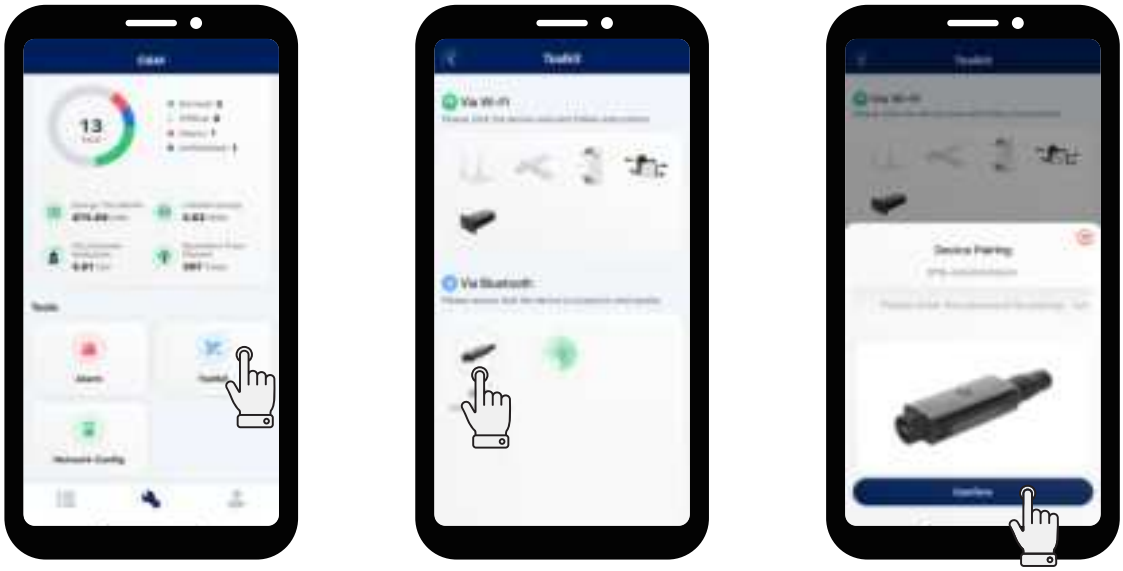
### 7.1.2 DTS-G3

> **NOTE**
>
> The steps about the password are only required for the first connection.

**Step 1** Tap **O&M** > **Toolkit**.

**Step 2** On the **Via Bluetooth** part, tap the DTS to be connected.

**Step 3** Enter the default password **123456** and tap **Confirm**.



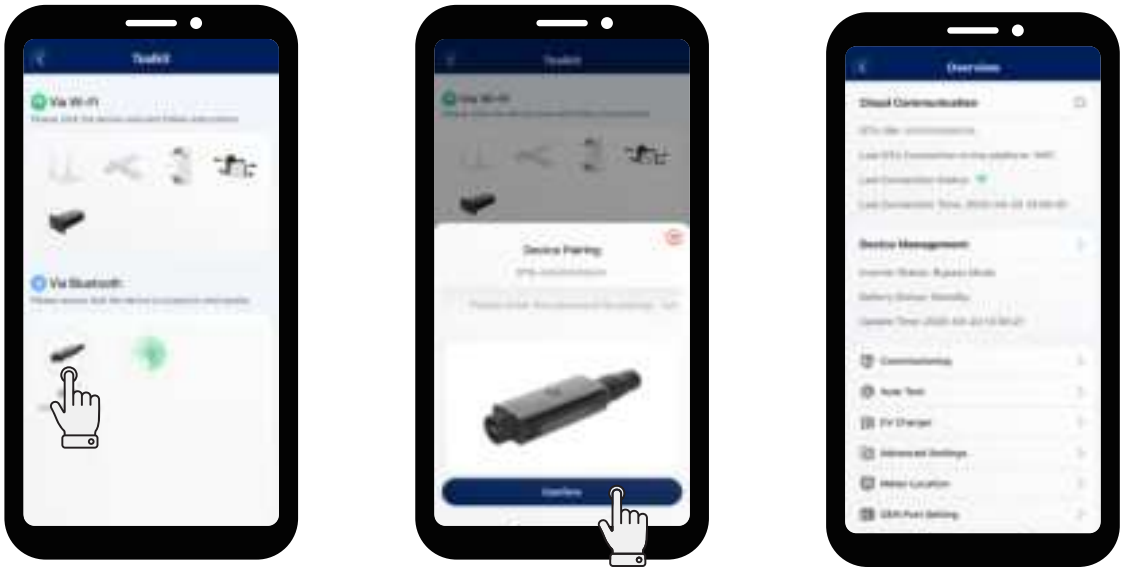
**Step 4** Tap **Go to Settings** to change the default password to a new one.

**Step 5** Enter the original password and new password, confirm the new one, and tap **Send to DTU**.

**Step 6** Tap **Toolkit** again.

**Step 7** On the **Via Bluetooth** part, tap the DTS to be connected.

**Step 8** Enter the new password and tap **Confirm**.



## 7.2 Add an EV Charger

**Step 1** Tap **EV Charger**.

**Step 2** Tap **Auto Search** or scan the QR code on the label to identify the serial number (SN).

**Step 3** Tap **Save**.

> **NOTE**
>
> Currently, it is not supported to connect two EV chargers to one inverter.

## 7.3 View an EV Charger

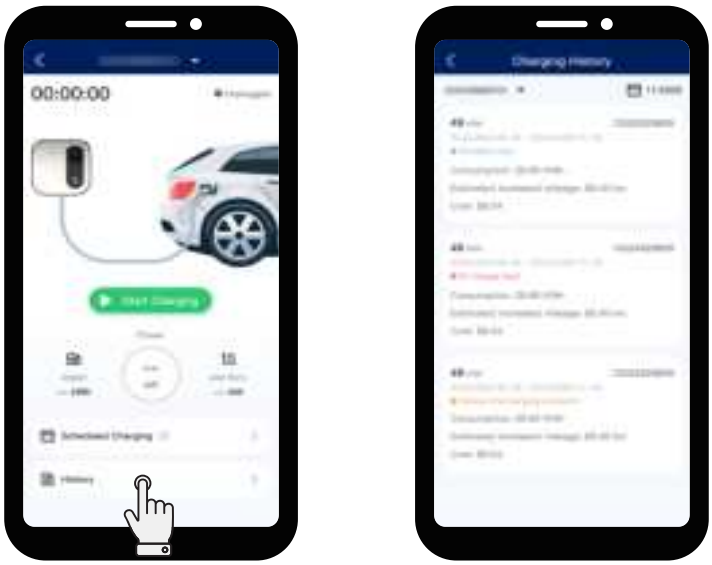
Tap the target plant to which the EV charger belongs and tap **Charger** to enter the EV Charger overview interface.

- EV Charger Status

| Status | Description |
|---|---|
| Charging | The EV charger is charging the electric vehicle. |
| Faulted | A fault occurs. |
| Unplugged | The charging connector of the EV charger is not plugged into the charging connector holder. |
| Avaliable | The charging connector of the EV charger is plugged into the charging connector holder. |
| Disconnected | There is a communication failure between the EV charger and the inverter. |
| Suspended | The EV charger suspends charging due to specific reasons. |

- Charging History

  Tap **History** to view the charging history.



## 7.4 Control an EV Charger

Tap the target plant to which the EV charger belongs and tap **Charger** to enter the EV Charger overview interface.


### 7.4.1 Start Charging

Tap **Start Charging** after the charging connector is plugged into the charging port of the electric vehicle.

### 7.4.2 Stop Charging

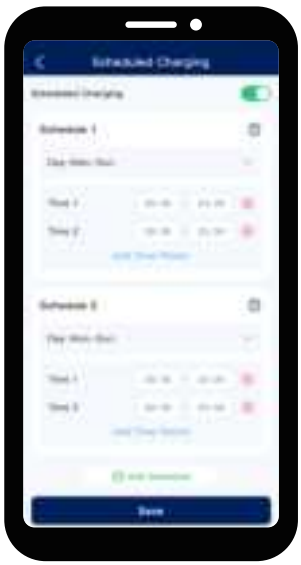
Tap **Stop** if you want to stop charging before the electric vehicle is fully charged.


### 7.4.3 View Alarms

If an alarm occurs, tap **Alarms** to check the alarm code and its troubleshooting suggestions.

### 7.4.4 Enable Scheduled Charging

Tap **Scheduled Charging** to enable scheduled charging and set the start and stop time.

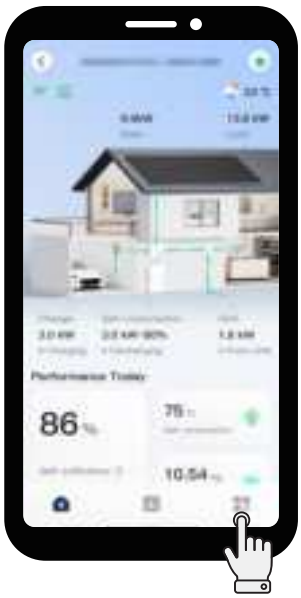



## 7.5 Set EV Charger Parameters

**Step 1** Tap the target plant to which the EV charger belongs.

**Step 2** Tap in the lower right corner.

**Step 3** Tap **Device List**.




**Step 4** Tap **EV Charger** > **EV Charger SN**.

**Step 5** Tap **EV Charger Settings**.

**Step 6** Set relevant parameters and tap **Save**.

- EV Charger Settings

| Parameter | Description |
|---|---|
| Charging Power Setting | The maximum charging power of the EV charger.<br>• VAS-7-G2: 7 kW (default value); 1.4 kW-7 kW (range)<br>• VAT-11-G2: 11 kW (default value); 4.2 kW-11 kW (range)<br>• VAT-22-G2: 22 kW (default value); 4.2 kW-22 kW (range) |
| Offline Charging Power | The EV charger will charge the electric vehicle at this power if there is a communication failure between the EV charger and the inverter. |
| Charging Mode | • RFID Card<br>• Free Charge |

- Green Power Mode

  The details about the green power mode are explained in ***3.7.2 Green Power Mode***.

# 8 System Maintenance

## 8.1 Routine Maintenance

**NOTE**

The inspection items, frequency, and working hours listed below are for reference only. Different regions can adjust these based on local regulations and actual site conditions.

The recommended maintenance schedule is provided in the table below. Local regulations may require adjustments to the maintenance cycle. In such cases, always comply with applicable laws.

| Item | Maintenance Cycle | Working Hours |
|---|---|---|
| Appearance Check | Yearly | 5 mins/unit |
| Internal Check | | 10 mins/unit |
| Functional Check | | 15 mins/unit |
| Cleaning | | 20 mins/unit |

### 8.1.1 Appearance Check

**NOTICE**

Before the inspection, ensure that the power is off.

| Item | Content | Method |
|---|---|---|
| Appearance Check | The EV charger is intact and complete. | Visually |
| | All components of the equipment are free from stains, scratches, and deformations. | Visually |
| | Nameplate and other symbols are accurate, clear, and complete. | |
| | The charging cable/socket is complete without damage. | |
| | No water or dust in the charging connector. | |
| | The insulation cap of the charging connector is complete. | |

### 8.1.2 Internal Check

**NOTICE**

Before the inspection, ensure that the power is off.

| Item | Content | Method |
|---|---|---|
| Internal Check | Ensure the wiring and screws on MCB are firm. | Visually/Manually |
| | L1/L2/L3/N/PE connection | |

**NOTE**

If any screw or connection is found loose, a screwdriver must be used to tighten it.

### 8.1.3 Functional Check

**NOTICE**

Before the inspection, ensure that the EV charger is on.

| Item | Content | Method |
|---|---|---|
| Functional Check | During standby, the LED indicator is functional with color codes. | Visually |
| | Measure the voltage between L1/L2/L3 and N; N and PE; L1/L2/L3 and PE in the switch box. | Visually/ Measurement |
| | During charging, the LED indicator is functional with color codes. | Visually |

### 8.1.4 Cleaning

**NOTICE**

Before the inspection, ensure that the power is off.

It is recommended that the enclosure of the charger be regularly cleaned with a wet cloth. In addition, there should be no plants growing on or around the charger.

- Do not clean the product with a high-pressure water pipe.
- Do not clean the product with a corrosive cleanser.
- Do not clean the inside of the product.

## 8.2 Troubleshooting

| Fault | Possible Causes | Handling Suggestions |
|---|---|---|
| The Power LED is not on | No power supply. | 1. Check if the parent MCB+ Type A RCD or Type A RCBO has been turned off.<br>2. Make sure that the input power cable is intact and has been properly and securely connected to the charger.<br>3. Check whether the power voltage on the grid side is within the operating range (230/400 ± 10% Vac) of the charger with a voltage tester.<br>4. Turn off the charger by turning off the parent circuit breaker and restart the charger in about 20s.<br>5. When the input power cable is influenced by the surge or wrong wiring sequence, the device will be out of power for protection. Searching the support from the professional for the wiring sequence checking or other abnormal interference.<br>6. Power on after the above checks are finished. |

| | | |
|---|---|---|
| Failure to start charging | The charging connector is not inserted correctly. | Plug and unplug the charging connector again and confirm that the connector connection is successful. |
| | Failure to execute the charging process correctly. | Please follow the instructions in ***3.6 Product Usage*** and ***7 S-Miles Cloud***. |
| | The charging connector may be stained or damaged in the locking area. | Clean or replace the charging connector. |
| Failure to start charging by swiping the RFID card | The EV charger is still in the starting process. | Wait for about 2-5 minutes until the charger starts. |
| | The RFID card account is not activated. | Please contact your dealer or service provider to activate the RFID card account. |
| The vehicle is not fully charged, or the charging time increases | The current decreases due to the high temperature of the vehicle or the charger. | 1. Visually check whether the connectors are stained, worn, or damaged.<br>2. If necessary, please contact your dealer or service provider. |
| | Power is limited due to external control devices (power supply device, PV device). | / |
| The LED turns red | Red color is always on:<br>CP fault/Electric meter failure/NO ID | Please contact your dealer or service provider. |
| | Flashing red (1 time):<br>The emergency stop button is pressed. | Please release the emergency stop button by turning it counterclockwise. |
| | Flashing red (2 times):<br>Ground fault | 1. Check whether the grounding of the device is loose, damaged, or removed.<br>2. Measure whether the grounding resistance of the charger exceeds the standard (the grounding resistance is generally within 100Ω) with a tester (e.g. multimeter). |
| | Flashing red (3 times):<br>Undervoltage | Check whether undervoltage (≤161 Vac) happens to the power voltage on the grid side with a voltage tester. |
| | Flashing red (4 times):<br>Overvoltage | Check whether overvoltage (≥275 Vac) occurs on the power voltage on the grid side with a voltage tester. |
| | Flashing red (5 times):<br>Relay welding fault | Please contact your dealer or service provider. |
| | Flashing red (6 times):<br>Overtemperature | 1. Power off the EV charger.<br>2. Turn on the EV charger when the temperature returns to normal. |
| | Flashing red (7 times):<br>Leakage current fault | Please contact your dealer or service provider. |

| | | |
|---|---|---|
| The LED turns red | Flashing red (10 times): Overcurrent | Please check if the current is within the recommended range. |

**NOTE**

If the problem still exists, please contact your dealer or service provider for help.

# 9 Transportation and Storage

If the EV charger is not used immediately, or after removing it from the wall or pole, it should be moved or stored based on the following requirements:

- The product should be transported and stored in its original packages.
- The product should be stored indoors.
- The product should be stored in a dry, clean and well-ventilated place.
- The product should be stored away from flammable and corrosive substances.
- The product should be stored between -40°C and 85°C.
- Do not place any other objects on the EV charger.
- Do not lift or carry the EV charger by the charging cable.
- Do not lift or carry the EV charger by flexible conduits and input conductors.

# 10 Decommissioning

## 10.1 Removing the Product

**Step 1** Power off the product.

**Step 2** Disconnect all cables.

**Step 3** Remove the EV charger from the wall or pole.

## 10.2 Packing the Product

If the original package is available, put the product and its accessories into the package and keep it in a dry and proper place.

If the original package is not available, put the product and its accessories into a suitable package. The package should be easy to remove, can bear the weight of the product, and can be sealed properly.

## 10.3 Disposing of the Product

If the EV charger can not be used and needs to be disposed of, dispose of the EV charger and its accessories in accordance with the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

In accordance with the WEEE and its implementation in national law, the electrical devices including chargepoints which are used must be collected separately and recycled in an environmentally responsible manner. We recommend that you return your used device to your dealer or obtain information regarding a local, authorized collection and disposal system. Failure to comply with this EU Directive may result in a negative impact on the environment.

# 11 Technical Datasheet

| Model | VAS-7-G2 | VAT-11-G2 | VAT-22-G2 |
|---|---|---|---|
| **General Information** | | | |
| Charging mode | Mode 3 (IEC 61851-1) | | |
| Input/output power rating (kW) | 7 | 11 | 22 |
| Max. input/output current (A) | 32 | 16 | 32 |
| Input/output voltage rating (V) | 230±10% | 400±10% | |
| Rated frequency (Hz) | 45-65 | | |
| Grid form | L/N/PE | 3L/N/PE | |
| Supported grid type | TN-S, TN-C-S, TT, IT (L1 + L2 230 Vac single-phase) | | |
| Charging interface | IEC 62196-2 Type 2 tethered plug (Case C) | | |
| Residual current protection | DC 6 mA | | |
| Protection | Overcurrent, overvoltage, undervoltage, residual current, overtemperature, grounding fault (optional), integrated surge protection | | |
| **User Interface** | | | |
| Display and support languages | No display | | |
| Status indication | LED indicator | | |
| Button and switch | Emergency stop button | | |
| User authentication | RFID card | | |
| RFID reader | IEC 14443 A | | |
| **Communication** | | | |
| Network Interface | RS485 | | |
| Protocol (EVSE and EV) | Control pilot | | |
| **Environmental Information** | | | |
| Operating temperature (°C) | -30 to +50 | | |
| Storage temperature (°C) | -40 to +85 | | |
| Humidity | 5% to 95%, no condensing | | |
| Altitude (m) | ≤3000 | | |
| **Mechanical Information** | | | |
| Dimensions (W × H × D [mm]) | 280 × 280 ×148 (without pole)<br>280 × 1210 ×201 (with pole) | | |
| Weight (kg) | Approx. 3.75 | | |
| Installation | Wall mounting; pole mounting (pole is optional) | | |
| IP rating | IP65 | | |
| IK rating | IK10 | | |
| Cooling | Natural convection | | |
| Charging cable length (m) | 5 | | |
| **Certifications and Standards** | | | |
| Standards and compliance | IEC 61851-1, IEC 61851-21-2, LVD 2014/35/EU, RED 2014/53/EU, IEC 62955 (RCD), RoHS 2.0, REACH | | |
| Certification | CE-RED, CB | | |

## Hoymiles Power Electronics Inc.

Floor 6, Building 5, 99 Housheng Road,
Gongshu District, Hangzhou 310015 P. R. China

+86 571 2805 6101

hoymiles.com

service@hoymiles.com
support@hoymiles.com