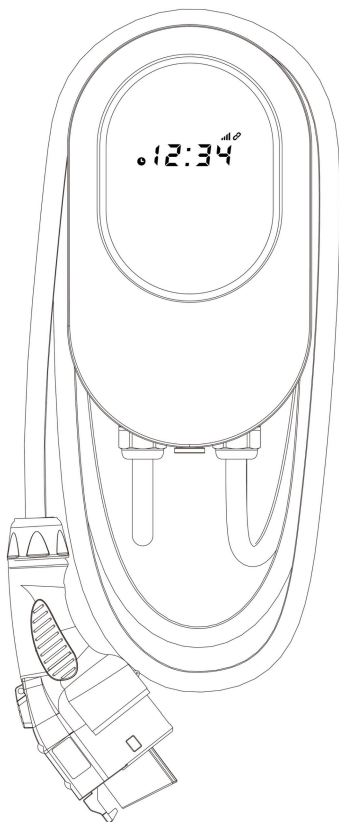


# Electric Vehicle AC Charger

## Installation Manual

For models: HS100








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## **WARNING & CAUTION**

# 1. Important Safety Instructions









## 1.1 Warnings & Cautions

-  **WARNING:** To avoid fire, injury or death, read and follow the instructions carefully during installation, operation and maintenance.  
**DO NOT** put fingers into the electric vehicle connector.  
**DO NOT** use this product if the power cord or EV cable is frayed, insulation-broken, or any other signs of damage.  
**DO NOT** use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.  
**DO NOT** remove cover or attempt to open the enclosure because of risk of electric shock.
-  **WARNING:** This device should be supervised when used around children.
-  **WARNING:** This device must be grounded.  
**WARNING:** To avoid the risk of fire or electric shock, do not use this device with an extension cord.
-  **WARNING:** The suitability of the use of flexible cord in accordance with CE code, part I, rule 4-012, is to be determined by the local inspection authority.
-  **WARNING:** To reduce the risk of fire, connect only to a circuit provided branch circuit over-current protection in accordance with the CSA C22.1–15 Canadian Electrical Code, Part 1 (Canada) or NOM-001-SEDE Electrical installations (utility) (Mexico) or ANSI / NFPA 70 National Electrical Code (USA).





Output Amperage (A)	16A	32A	40A	48A
Circuit Breaker Options (A)	20A	40A	50A	60A

# INSTALLATION MANUAL

## 1.2 Installation Requirements








-  **WARNING:** Disconnect electrical power prior to installing the charging station.
-  **WARNING:** Be sure to preview the user manual and ensure local building and electrical codes are reviewed before installing the AC charger.
-  **WARNING:** The AC charger should be installed by a qualified technician according to the user manual and local safety regulations.
-  **CAUTION:** Use appropriate protection when connecting to the main power distribution cable.
-  **CAUTION:** Type B, C or D breaker with the rating current for table should be installed in the upstream AC distribution box.
-  **CAUTION:** Disconnect switch for each ungrounded conductor of AC input shall be provided by others in accordance with the National Electric Code, ANSI/NFPA70.
-  **CAUTION:** The device shall be mounted at height between 2 feet (600 mm) and 4 feet (1200 mm) from ground.
-  **CAUTION:** Please keep the charger in a clean area with low humidity. Not recommended to be installed in coastal environments with high humidity or dust.

## 1.3 Daily Maintenance

-  **CAUTION:** Avoid moisture or water in the charger. If there is water or moisture ingress in the charger, it is necessary to immediately power off to avoid immediate danger and notify the professionals to carry out maintenance before next use.
-  **CAUTION:** Please use the charger properly. Do not hit or press hard on the enclosure. If it is damaged, please contact a professional technician.
-  **CAUTION:** Avoid placing the charger near hot objects and at high temperature locations and away from dangerous substances such as flammable gases and corrosive materials.
-  **CAUTION:** Do not put heavy objects on the charger to avoid danger.

## Consignes De Sécurité Importantes









### 1.1 Avertissement & Mise En Garde Généraux

-  **AVERTISSEMENT** : Pour éviter les risques d'incendie, de blessure ou de mort, il faut lire et suivre soigneusement les instructions pendant l'installation, l'utilisation et l'entretien.
  - **Ne mettez pas** les doigts dans le connecteur du véhicule électrique.
  - **N'utilisez pas** ce produit si le cordon d'alimentation flexible ou le câble EV est effiloché, isolé ou présentant tout autre signe de dommage.
  - **N'utilisez pas** ce produit si le boîtier ou le connecteur EV est cassé, fissuré, ouvert ou montre toute autre indication de dommage.
-  **Ne retirez pas** le couvercle et n'essayez pas d'ouvrir le boîtier en raison du risque de choc électrique.
-  **AVERTISSEMENT** : Cet appareil doit être surveillé lorsqu'il est utilisé à proximité d'enfants.
-  **AVERTISSEMENT** : Cet appareil doit être mis à la terre.
-  **AVERTISSEMENT** : Pour éviter tout risque d'incendie ou de choc électrique, n'utilisez pas cet appareil avec une rallonge électrique.
-  **AVERTISSEMENT** : L'adéquation de l'utilisation du cordon flexible conformément au code ce, partie i, règle 4-012, doit être déterminée par l'autorité d'inspection locale compétente.
-  **AVERTISSEMENT** : Pour réduire les risques d'incendie, ne connecter qu'à un circuit protection contre les surintensités des circuits de dérivation conformément à la norme canadienne CSA C22.1-15 Code électrique, partie 1 (Canada) ou NOM-001-SEDE Installations électriques (Mexique) ou ANSI / NFPA 70 National Electrical Code (États-Unis).





Courant De Sortie (A)	16A	32A	40A	48A
Options De Disjoncteur (A)	20A	40A	50A	60A

# INSTALLATION MANUAL

## 1.2 Exigence Avant L'installation

-  **AVERTISSEMENT** : Assurez-vous de consulter le manuel d'utilisation et assurez-vous que les codes locaux du bâtiment et de l'électricité sont passés en revue avant d'installer le chargeur.
-  **AVERTISSEMENT** : Débranchez l'alimentation électrique avant d'installer la station de charge.
-  **AVERTISSEMENT** : Le chargeur CA doit être installé par un technicien qualifié conformément au manuel d'utilisation et aux réglementations de sécurité locales.
-  **MISE EN GARDE** : Utilisez une protection appropriée lors de la connexion au câble de distribution d'alimentation principal.
-  **MISE EN GARDE** : Un disjoncteur de type B, C ou D avec le courant nominal indiqué dans le tableau doit être installé dans le boîtier de distribution CA en amont.
-  **MISE EN GARDE** : L'interrupteur de déconnexion pour chaque conducteur non mis à la terre de l'entrée CA doit être fourni par des tiers conformément au Code national de l'électricité, ANSI/NFPA70.
-  **MISE EN GARDE** : Cet appareil doit être monté à une hauteur entre 600 mm (2 pieds) et 1200 mm (4 pieds) du sol.
-  **MISE EN GARDE** : Veuillez conserver le chargeur dans un endroit propre et peu humide. Il n'est pas recommandé de l'installer dans des environnements côtiers à forte humidité ou à forte poussière.

## 1.3 Entretien Quotidien

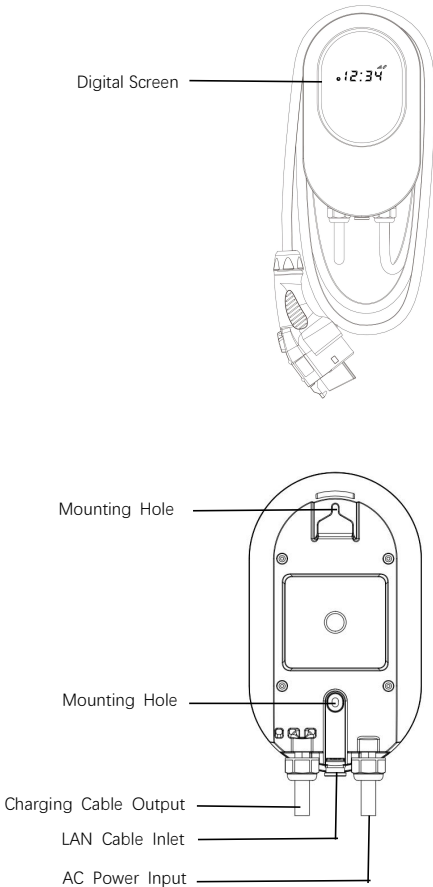
-  **MISE EN GARDE** : Évitez l'humidité ou l'eau dans le chargeur. En cas d'infiltration d'eau ou d'humidité dans le chargeur, il est nécessaire de l'éteindre immédiatement pour éviter tout danger immédiat et d'avertir le personnel professionnel d'effectuer l'entretien avant la prochaine utilisation.
-  **MISE EN GARDE** : Veuillez utiliser le chargeur correctement. Ne frappez pas ou n'appuyez pas trop fort sur le boîtier. Si le boîtier est endommagé, veuillez contacter un technicien professionnel.
-  **MISE EN GARDE** : Évitez de placer le chargeur à proximité d'objets chauds et à des endroits à haute température et loin de substances dangereuses telles que des gaz inflammables et des matériaux corrosifs.
-  **MISE EN GARDE** : Ne placez pas d'objets lourds sur le chargeur pour éviter tout danger.

## 2. Product Introduction



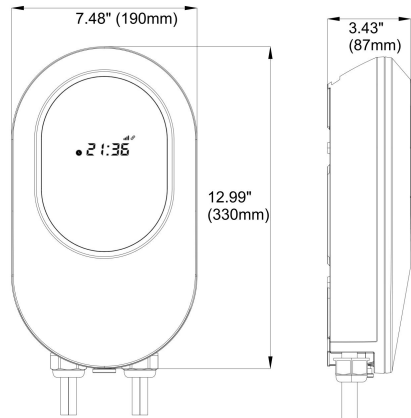
**CAUTION:** Avoid placing the charger near hot objects and at high temperature locations and away from dangerous substances such as flammable gases and corrosive materials.

### 2.1 Basic Interface

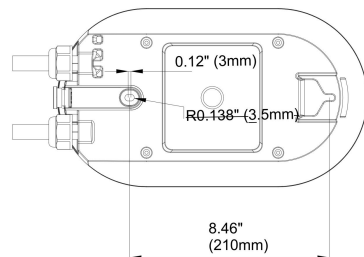


### 2.2 Basic Dimension

#### Enclosure



#### Wall-Mounted Holes



# INSTALLATION MANUAL

## 2.3 Specifications

TECHNICAL			
Model Number	HS100		
Rated Input Voltage	208Vac-240Vac		
AC Power Frequency	50-60 Hz		
Rated Output Power/Current	7.4kW/32A	9.6kW/40A	11.5kW/48A
Standard Compliance	UL2594, UL2231-1/-2,UL1998, CSA C22.2, FCC part 15c		
Charging Connector	SAE J1772 Type 1 Plug		
Charging Mode	Level 2		
Electrical Protection	UVP, OVP, RCD (CCID20), SPD, Ground Fault Protection, OCP, OTP, Control Pilot Fault Protection		
Energy Meter	On-board Device +/- 1% Accuracy		
FEATURES			
User Interface	Digital Screen		
Multi Cable Entry	Bottom Side		
NETWORK			
Connectivity	LAN Ethernet, WiFi and Bluetooth Standard		
ENVIRONMENT			
Operating Temperature	-22° F to 122° F		
Operating Humidity	Up to RH 95% Non-condensing		
Impact/ Ingress Protection Rating	Type 3		



# INSTALLATION MANUAL

PHYSICAL	
Housing Material	PC with Anti-UV Treatment
Dimension in inch	7.48" x 12.99" x 3.43" (190mm x 330mm x 87mm)
Net Weight	≈12.54 Lbs
OPTIONS	
Network	LTE, GSM / GPRS
Communication Protocol	OCPP1.6J
Electrical Protection	E-stop Button with Protection Cover
Data Connection	Back-end Service via OCPP / Home App
NFC Authentication	ISO / IEC 14443A / MIFARE (13.56 MHz)
Pedestal	Single / Back-to-Back Mounted

## 2.4 Design Standards

UL 2594: Electric Vehicle Supply Equipment  
UL 2231-1: UL Personnel Protection Systems for Electric Vehicle (EV) Supply Circuits: General Requirements

UL 2231: Personnel Protection Systems for Electric Vehicle (EV) Supply Circuits: Particular Requirements for Protection Devices for Use in Charging Systems

UL 2251: Plugs, Receptacles and Couplers for Electric Vehicles

UL 62: Flexible Cords and Cables

UL 991: Tests for Safety-Related Controls Employing Solid-State Devices

UL 1998: Software in Programmable Components

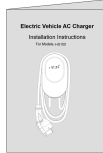
NFPA 70 Article 625: National Electrical Code, Electric Vehicle Charging System  
UL 840 (Clearance and Creepage)

## 3. Accessories

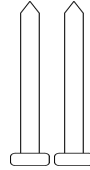
Check the box to ensure you have this installation guide and these parts:



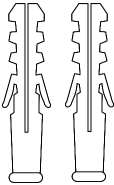
1



2



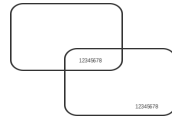
3



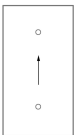
4



5



6



7

# INSTALLATION MANUAL

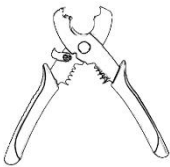
No.	Product Name	Quantity	Description
#1	AC Charger	1	With attached input power cable and output charging cable
#2	User Manual	1	PDF version available online
#3	Screws	2	For installing the AC Charger to the wall/structure
#4	Expansion Rubber Sleeve	2	For Lock Screw to the wall/structure
#5	Screw Cover	1	For covering screw
#6	Standard RFID Cards	2	To start/stop charger for the unit with RFID reader
#7	Mounting Template	1	For easy drilling of 2 screws holes for AC Charger.

Note: If you are missing any of these parts, please contact us.

## 4. Tools for Mounting

Tools required before installing the Wall-mounted charger, gather the following tools:

1. Wire stripper
2. Adjustable wrench
3. Voltmeter or digital multi-meter (for measuring AC voltage at the installation site)
4. Level
5. Pencil or marker
6. Drill
7. Phillips screwdriver



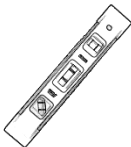
1



2



3



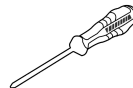
4



5



6



7

Note: The above tools are very important, please gather them all.

## 5. Plan The Mounting



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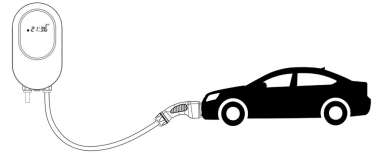
**WARNING:** In areas with frequent thunderstorms, add surge protection at the service panel for all circuits. Ensure all power and ground connections, especially those at the breaker and bus bar, are clean and tight.

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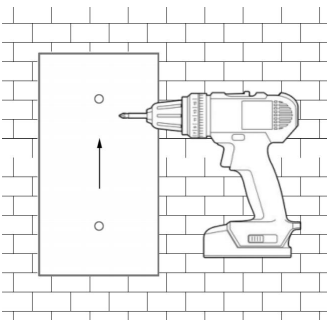
### STEP 1

**Select** the appropriate mounting location with electrical capacity:

- I. Ensure the owner has chosen a mounting location that allows the charging cable to reach the car's charging port while still providing slack.
- II. The device must be anchored on a solid wall or a stud with the dimensions: 3.15"(80mm) x 5.118"(130mm).
- III. The device shall be mounted at 47.244" (1200mm) height from ground.



### STEP 2

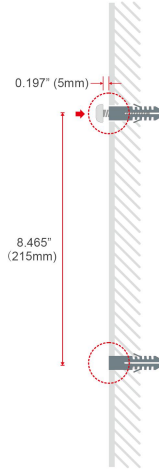


**Drill 2 Screw Holes** with a diameter of 0.472"(12mm) and a depth of 2.244"(57mm) by using #7 mounting template. Please drill screw holes in the direction of the template arrow.

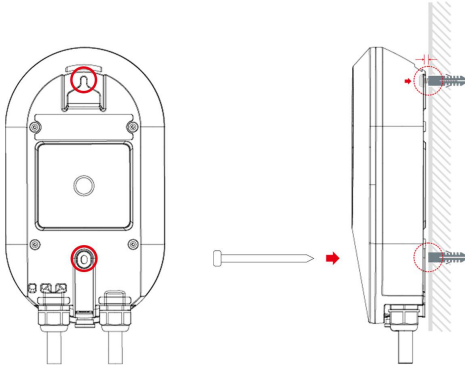
## 6. Mount the Charger

### STEP 3

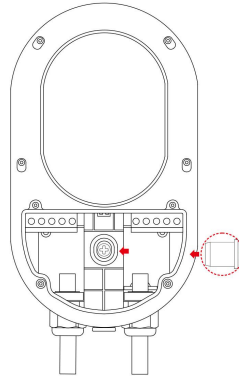
Nail #4 two expansion rubber sleeves into the holes and nail #3 one screw to the top expansion rubber sleeves. The distance between the cover of the screw and the wall is about 0.197"(5mm)



### STEP 4



### STEP 5

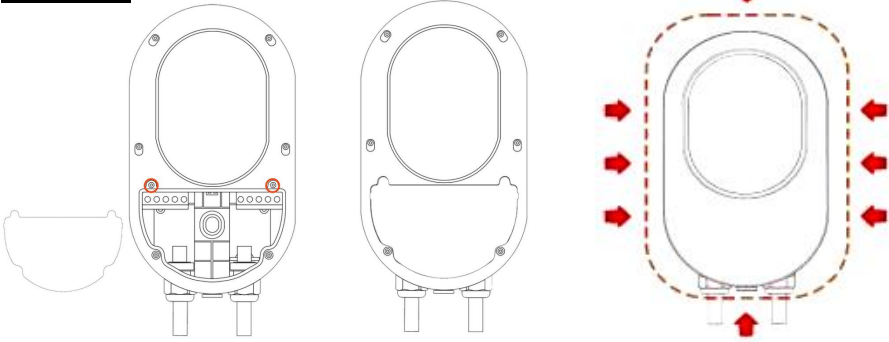


Align the rear notch of charger with the holes and hang the top notch on the top screw, fit the #3 screw to the bottom hole.

Cover the screw with #5 screw cover.

# INSTALLATION MANUAL

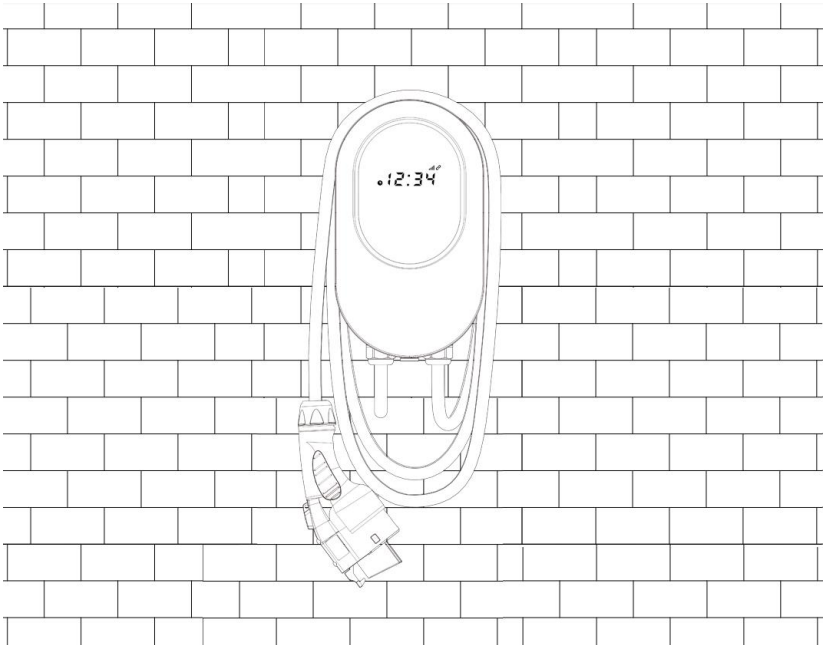
## STEP 6



Fix the inside cover on the charger with two screws and fasten the outside cover.

## STEP 7

Overall outlook after installation.



## 7. Wire the Circuit



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**WARNING:** This device must be grounded. Disconnect electrical power prior to installing the charging station.

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**WARNING:** Improper connection of the equipment-grounding conductor would result in a risk of electric shock. Check with a qualified electrician or serviceman if you are not sure whether the product is properly grounded. Do not modify the plug provided with the product – if it doesn't fit the outlet, have a proper outlet installed by a qualified electrician.

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**CAUTION:** Use appropriate protection when connecting to the main power distribution cable.

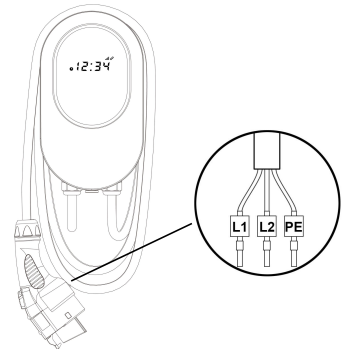
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### STEP 8

For the safety purpose, please set circuit breaker protection in the input part of EV Charger.  
Please follow the instructions below:

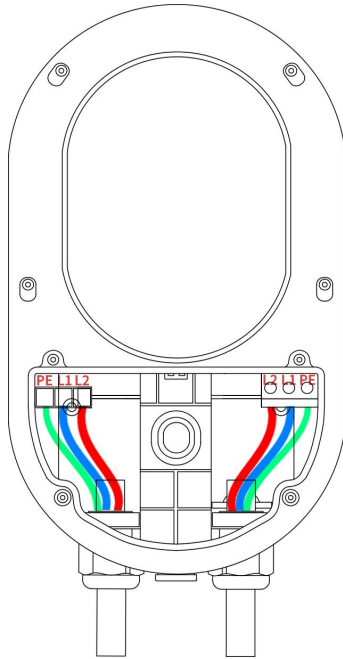
#### For Single Phase

Connect the L1 lead to the grid L1, connect the L2 lead to the grid L2, connect the PE lead to the grid PE.





# INSTALLATION MANUAL



Circuit Breaker Options				
Output Amperage (A)	16A	32A	40A	48A
Circuit Breaker Options (A)	20A	40A	50A	60A

## 8. Operate the Device



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**WARNING:** This device should be supervised when used around children.

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**CAUTION:** Please use the charger properly. Do not hit or press hard on the enclosure. If the case is damaged, please contact a professional technician.

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**CAUTION:** Do not put heavy objects on the charger to avoid danger.

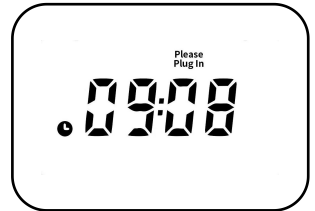
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### 8.1 Operating Steps with Plug and Charge

#### STEP 1

**Standby:**

After the power has been turned on, you will see the sign “Please Plug In” on the LED screen.



#### STEP 2

**Plug the Charging Connector:**

Please plug the charging connector into the vehicle charging inlet.



# INSTALLATION MANUAL

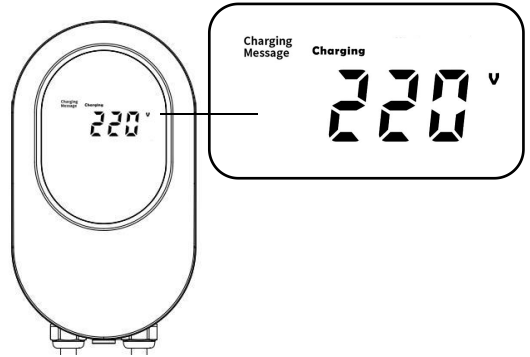
## STEP 3

**Charging:** When the charging is going on, you will see the following info on the LED screen:

“Charging”, circularly voltage, currents and kWh.

If the sign “▲” is on, try to plug the vehicle connector again.

If the sign “▲” continues to be on, please refer to “9.2 Error and warning message”.

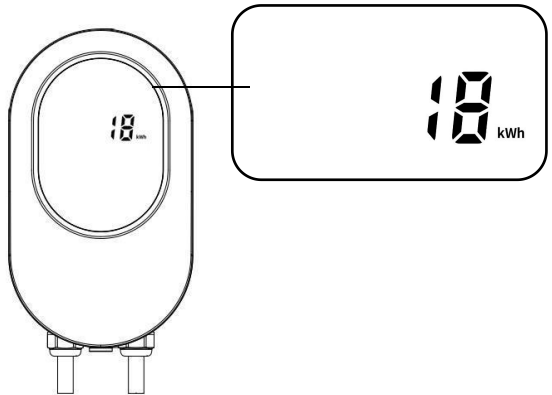


## STEP 4

### Charging finished:

When the charging is completed, the number of total kWh will be shown.

This indicates the total kWh your car has received. Please pull out the charging connector.



# INSTALLATION MANUAL

## 8.2 Operating Steps with RFID

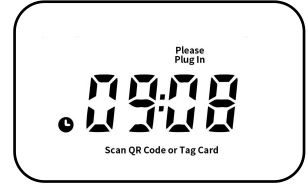


**CAUTION:** Please keep your RFID card properly to avoid unnecessary loss.

### STEP 1

#### Standby:

After the power has been turned on, you will see the sign “Please Plug In” on the LED screen and the sign “Scan QR Code or Tag Card”



### STEP 2

#### Ready to charge:

Please plug the charging connector into the vehicle charging inlet.



### STEP 3

#### Tap the standard RFID Card:

Please plug the charging connector into the vehicle charging inlet and tap the RFID card.



# INSTALLATION MANUAL

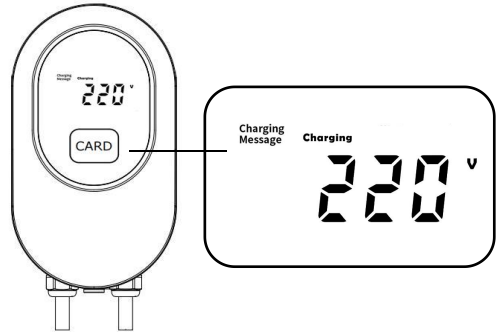
## STEP 4

### Charging:

When the charging is going on, you will see the following info on the LED screen: "Charging", circularly voltage, currents and kWh.

If the sign "▲" is on, try to plug the vehicle connector again.

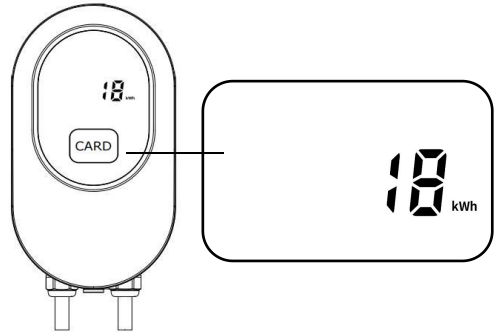
If the sign "▲" continues to be on, please refer to "9.2 Error and warning message".



## STEP 5

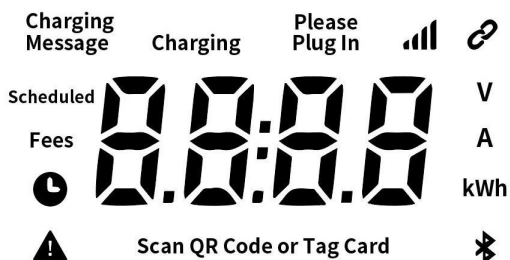
### Charging finished:

When you swipe your RFID card to stop charging, the number of total kWh will be shown. This indicates the total kWh your car has received. Please pull out the charging connector.



## 9. The Digital Screen

### 9.1 The Details of Screen



### 9.2 Error and Warning Messages

Status	Screen Display	Remark
Off Ground	0001	Auto Recover
RCD Abnormal	0002	Auto Recover
Over Current Protection	0004	Auto Recover
Over Voltage Protection	0008	Auto Recover
Under Voltage Protection	0016	Auto Recover
Energy Meter Fault	0032	Contact Customer Service
Control Pilot Fault	0128	Auto Recover
Over Temperature Protection	0256	Auto Recover
Ground Fault	0512	Auto Recover
Ground Self-Test	1024	Auto Recover

## 10. Smart APP Guide (Optional)

1. Download Home EV app.



2. Follow the tutorial in APP to connect your device.

## 11. FCC Statement

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

This device may not cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation.

Caution: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WIFI module: Contains FCC ID:2AC7Z-ESPWROOM32D

To satisfy FCC RF exposure requirements, a separation distance of 20cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.

## 12. Warranty and Maintenance

- The warranty period for this charger is two years.
- During the warranty period for any malfunction under normal use according to the User Manual and Service Instructions (to be determined by certified maintenance technicians of sellers), the product shall be repaired free of charge. Except for the following situations, the charger shall be subject to the above warranty terms:
  1. The warranty certificate cannot be provided or the contents of the warranty certificate are modified or inconsistent with the label indication of the repaired product.
  2. Those who are unable to provide valid proof of purchase.
  3. Those who exceed the manufacturer's specified warranty period.
  4. Those who damage the product due to not following the product service instruction for use, maintenance and storage.
  5. Damage or malfunction caused by external object entering.
  6. Unauthorized repair, disassembly or modification.
  7. Damage caused by force majeure (such as lightning, excessive voltage, earthquake, fire, flood, etc.).
  8. Malfunction and damage caused by other unavoidable external factors. Malfunction and damage caused by improper use of equipment, such as water or other solutions entering into the equipment.
  9. Malfunction and damage caused by the grid power supply and voltage which is not specified for use with the charger equipment.

The above guarantees shall be made solely, and no other express or implied warranties shall be made (including the implied warranties of merchant ability, particular and applicable reason- ableness and adaptability, etc.) whether in the contract, civil negligence, or other aspects, the Company shall not be responsible for any special, incidental or consequential damage





