Commercial Wall-mounted DC EV Charger Instruction Manual

Catalog

1 Equipment Installation

1.1 Pre-installation Inspection

1.1.1 Appearance Check

Before installing the equipment, inspect the shell for obvious damage, such as holes, cracks or other possible signs of internal damage, and check the equipment model. If there is any appearance abnormality or if the equipment model does not match, please contact your supplier.

1.1.2 Inspection of Delivered Items

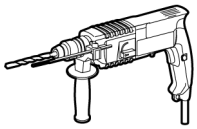
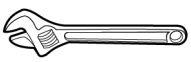
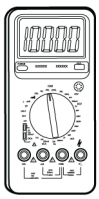
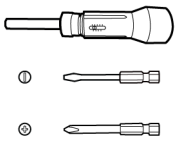
Check whether the delivered items are complete, whether there are loose screws, and whether there is any obvious external damage. If any items are missing, if there are loose screws or any damage, please contact your supplier.

1.2 Preparation of Installation Tools

Table 1-1 Tools Required for Charger Installation

Serial Number	Name (Item)	Function	Quantity
1	Electric Drill	Drilling holes in walls	1 unit
2	M12 Drill Bit	Used with electric drill for drilling holes in walls	1 piece
3	M8*60 Expansion Bolt	Fixing the charger	3 pieces
4	Multimeter	Checking electrical connections and electrical parameters	1 unit
5	Phillips Screwdriver	Cable installation and fixation	1 piece
6	Flathead Screwdriver	Cable installation and fixation	1 piece
7	M13 Wrench	Fixing screws	1 piece

Table 1-2 Tools Required for Charger Installation (Illustrated)

 Electric Drill	 M13 Wrench	 Multimeter	 Torque Screwdriver

Note

The tools shown are for reference only; please refer to the actual product.
Due to different on-site conditions, this tool list cannot fully list all possible tools

that may be used. Installers and on-site users can prepare tools not listed in the list according to actual conditions.

Special tools and installation materials provided with the product are not listed in this table.

1.3 Installation Environmental Requirements

Collect the location information of above-ground and underground water supply, gas and heating pipelines within the red line of the installation site to determine whether the safety distance for installation and operation meets the requirements. If conditions permit, obtain it from the original construction site, installation and electrical related drawings.

The installation location should not be under falling objects.

The installation location should not be in a place with corrosive gas or water, should not be on the downwind side of the prevailing wind of the pollution source, and should not be in a place where there may be water accumulation and severe vibration.

The installation site should have good lighting and ventilation.

The installation position and method of the charger should comply with the provisions of national laws, regulations and relevant standards.

The installation site should be spacious, facilitating personnel to carry out charging operations and park electric vehicles. The distance between the selected site and high-voltage lines and towers should meet the requirements of the "Regulations on the Protection of Electric Power Facilities", that is, all installation operations should be located outside the power line protection zone.

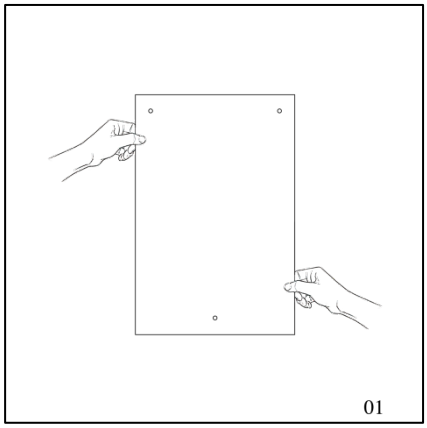
The installation site provides the power required for the normal operation of the charger. AC380V power supply voltage deviation range: -15% ~ +15%.

When selecting the charger installation site, the environmental conditions listed in Table 1-3 should also be considered.

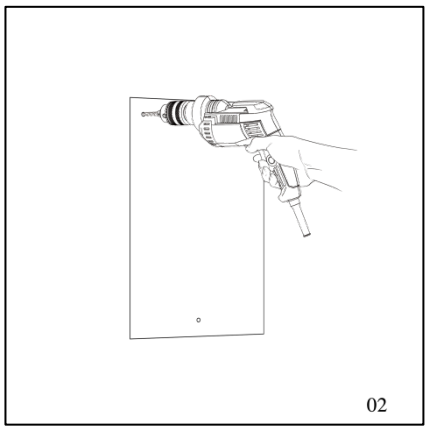
Ambient Conditions	Recommended Range
Ambient Temperature	-30℃ ~ 55℃
Altitude	≤2000m
Humidity Level	5%~95%RH, no condensation
Corrosive Substances	No pollutants such as salt, acid, smoke, etc.
Insects, Pests, Termites	None
Mold	None
Moisture	None
Fire Protection	No flammable materials on the top and bottom of the cabinet

Table 1-3 Charger Installation Environment

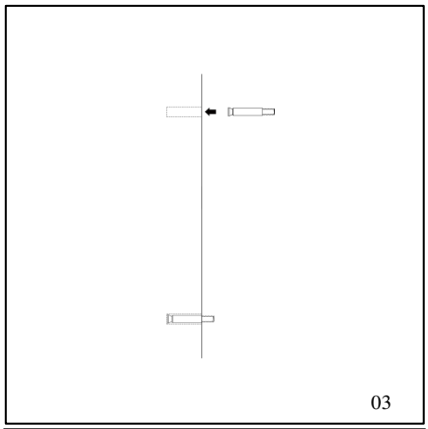
1.4 Installation Instructions



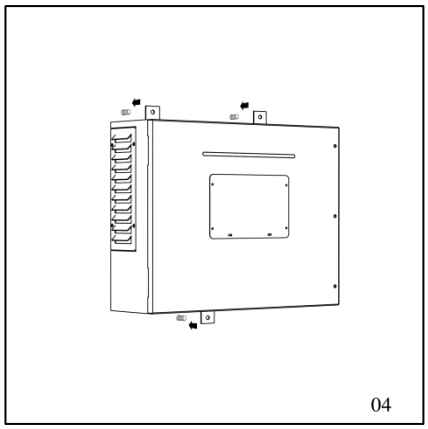
01. Use tools to mark the hole positions.



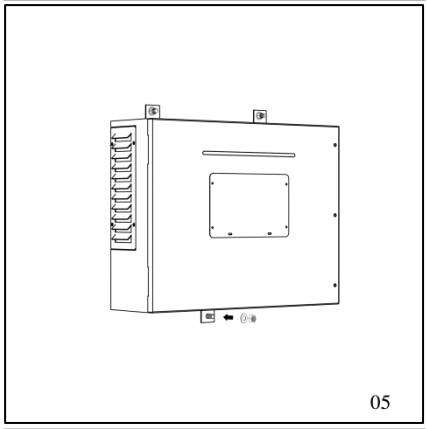
02. Use a 12mm drill bit to drill holes with a depth of 45-50mm.



03. Fully drive the M8 * 60 expansion bolt into the borehole, ensuring it is flush with the wall, then thread the bolt through the charging pile installation hole and tighten the screw



04. Insert the charging station into the installed bolt



05. Insert the washer and nut into the bolt and tighten it with a 13mm wrench

2 Electrical Connection

2.1 Precautions

Warning

- Damage to the equipment caused by incorrect wiring is not covered by the equipment warranty.
- Only qualified professional electrical technicians are allowed to perform operations related to electrical connection.
- When performing electrical connection, operators must be equipped with personal protective equipment.

Note

The cable colors in all electrical connection diagrams in this section are for reference only and should be selected in accordance with local cable standards (yellow and green wires can only be used for protective grounding).

2.2 Cable Installation Requirements

The input power cable of the charger is introduced from the bottom of the DC charger, and the power cable should be laid through cable trenches and protective pipes. The recommended cable types are as follows:

Charger Power	Input Current	Input Residual Current Operated Circuit Breaker	Recommended Cable Cross-Sectional Area (Copper Core)
20kW	≤36A	40A, 3P/4P	6mm²
30kW	≤54A	64A, 3P/4P	10mm²
40kW	≤72A	80A, 3P/4P	16mm²

Precautions:

1. The AC lead is connected to the lower port of the user's distribution switch.
2. The power distribution room shall be equipped with overcurrent, short-circuit and lightning strike protection devices.
3. The colors of AC power cables: yellow, green, red and light blue correspond to AC phases A, B, C and neutral line respectively; the ground wire uses yellow-green wire, and each wire should be connected to the equipment through a suitable terminal to ensure firm connection and good conductivity.
4. It is strictly prohibited for power lines to have breaks, tears or scratches.
5. The general wiring sequence is: first connect the protective grounding wire, then the neutral line, and finally the AC phase wires (phases A, B, C).
6. Before performing electrical connection, set all switches to the OFF position.

3.1 Pre-electrification Inspection

Serial Number	Checklist	Qualification Standard
1	Equipment Appearance	The equipment appearance is in good condition, without damage, rust or paint peeling.The equipment label is clearly visible; damaged labels should be replaced in a timely manner.
2	Cable Appearance	The cable protective layer is well wrapped without obvious damage.Insert the charging gun head into the gun holder of the DC charging terminal, and check whether the charging gun is broken and whether the inside of the charging gun is clean and free of foreign objects.

3.2 Electrification Inspection

After the line insulation and grounding meet the requirements, power on the charger. The charger should be able to work normally after power on, and the status indicator light should display correctly.

Ensure that the charger power point switch and the charging stack AC input switch are disconnected.

Power-on personnel should not wear rings, watches or other metal objects that may cause short circuits.

Use a multimeter to measure the resistance values between AC input A, B, C, N and PE respectively to determine whether there is a short circuit. If there is, check the line insulation.

4 Charger Operation Instructions

4.1 Equipment Power-on

1. Confirm that all the above inspection items meet the requirements.
2. Standby: The indicator light is blue.
3. Gun Insertion: Connect the gun cable to the vehicle port; at this time, the indicator light turns to flashing green.
4. Start Charging: Start charging; if started successfully, the indicator light turns to steady green.
5. Stop Charging: Unplug the charging gun from the vehicle end; at this time, the indicator light gradually dims and charging stops.
6. Fault Occurrence: The indicator light turns to steady red.

4.2 Charging Gun Operation Instructions

- Before plugging or unplugging for charging, observe whether there is any foreign object in the vehicle-side charging socket and whether the socket reed is broken; check whether there is any foreign object in the charging gun head, whether the wiring is complete, and whether the gun cable is intact.
- Insert the charging gun into the vehicle socket and press firmly; it is qualified if the hook can drop to the horizontal position.
- Do not operate the charging gun during charging.
- After charging is completed, the charging gun can only be unplugged after pressing the power button to stop charging. If the charging gun cannot be unplugged, please contact the operator and do not pull it out forcibly to avoid damage.
- After unplugging the charging gun, put it back in place for future use.

5 Daily Maintenance Methods of the Charger

Chargers without a background management system require regular on-site maintenance.

After the dust-proof cotton system has been in operation for six months, it should be removed for cleaning, and installed and used after drying. If the dust-proof cotton is not cleaned for a long time, it will cause difficulty in air intake, increase the module load, and easily cause module damage.

Maintenance Object	Work Content (Every Three Months)	Work Content (Once a Year)
Cabinet Cleaning (External and Internal Bottom Plates)	Check for dust and dirt	/
Terminal Blocks	Check for dust and dirt	Check for dust and dirt; inspect insulation and fasteners
Wiring Cables	Check for dust and dirt	Check for dust and dirt; inspect insulation and fastenings
Air Outlet Filter Screen	Check for dust accumulation and replace the filter screen according to the equipment operation status	/
Component Fastening	/	Check for looseness
Equipment Function Check	/	Charging control functions include human-machine interface, electrical control, safety protection, etc.