WZ15— Ultra thin DC EV Charger
Instruction Manual

catalogs

1

Equipment Installation

1.1 Pre-installation inspection

1.1.1 Checking the appearance

Before installing the equipment, check the case for visible damage such as holes, cracks or other signs of possible internal damage and check the equipment model number. If there are any cosmetic anomalies or if the equipment model number does not match, contact your supplier.

1.1.2 Inspection of deliverables

Check whether the delivery item is complete, whether there are any loose screws and whether there is any visible 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

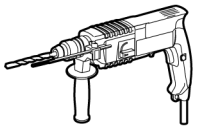
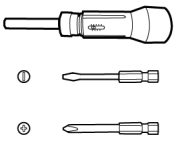
- Table 1-1 Tools required for installation of 20-30KW charging pile

serial number	name (of a thing)	use	quantities
1	electrodrill	Bore holes in walls	1 unit
2	M12 drill bits	Use a power drill to make holes in the wall	1 unit
3	M8*60 expansion bolt	Fixed simple back plate and gun mount	8 unit
4	multimeter	Check electrical connections and electrical parameters	1 unit
5	Phillips screwdriver	Cable and backplane installation and fixation	1 unit
6	A screwdriver in a word	Cable installation and fixation	1 unit
7	M13 wrench	Fix the back plate with a screw	1 unit

- Table 1-1 Tools required for installation of 40-60KW charging pile

serial number	name (of a thing)	use	quantities
1	electrodrill	Bore holes in walls	1 unit
2	M12 drill bits	Use a power drill to make holes in the wall	1 unit
3	M8*60 expansion bolt	Fixed simple back plate and gun mount	12 unit
4	multimeter	Check electrical connections and electrical parameters	1 unit
5	Phillips screwdriver	Cable and backplane installation and fixation	1 unit
6	A screwdriver in a word	Cable installation and fixation	1 unit
7	M13 wrench	Fix the back plate with a screw	1 unit

- Table 1-3 Tools required for charging pile installation (legend)

			
pneumatic drill	adjustable wrench	multimeter	torque

说明

- The tools shown are for reference only, please refer to the real thing.
- Due to the different conditions on site, this tool list can not completely list a few tools that may be used, please installers and users on site according to the actual situation, to prepare the tools not listed.
- Some of the special tools and installation materials shipped with the product are not listed in this table.

1.3 Installation environmental requirements

- Collect information on the location of above and underground water, gas and heating pipelines within the red line of the installation site to determine whether the installation and operation safety distance meets the requirements, if conditions allow, should be obtained from the site of the original building site, installation, electrical related drawings.
- The installation site should not be located underneath a falling object.
- The installation site should not be located in a place where there are corrosive gases, bodies of water, should not be located on the downwind side of the prevailing winds of the source of pollution, and should not be located in a place where there is a possibility of water accumulation and violent vibrations.
- The installation site has good 4G communications and should be easily accessible to fire and rescue forces.
- The installation site has good lighting and ventilation.
- The location and installation of the charger should be in accordance with national

laws, regulations and relevant standards.

- The installation site is spacious and convenient for parking of electric vehicles and charging operation by personnel.

- The distance of the selected site from high-voltage lines and towers meets the requirements of the Regulations on the Protection of Electric Power Facilities, i.e., all installation work activities should be outside the protection zone of electric power lines.

- The installation site provides the power supply required for the normal operation of the charging pile.

(1) Positive and negative deviation range of AC380V supply voltage: -15%~+15

(2) Positive and negative deviation range of AC220V supply voltage: -15%~+15

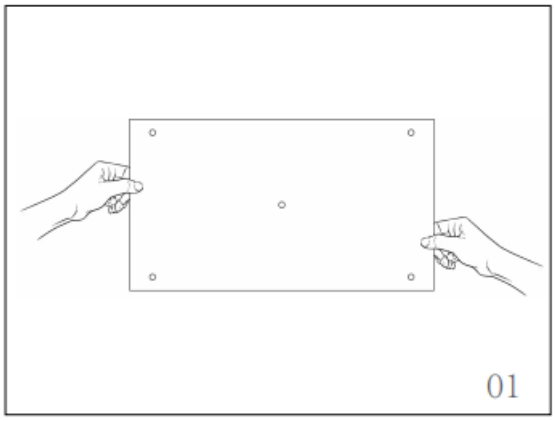
- The environmental conditions listed in Table 1-2 should also be considered when selecting a site for charging pile installation.

- Table 1-2 Installation environment of charging pile

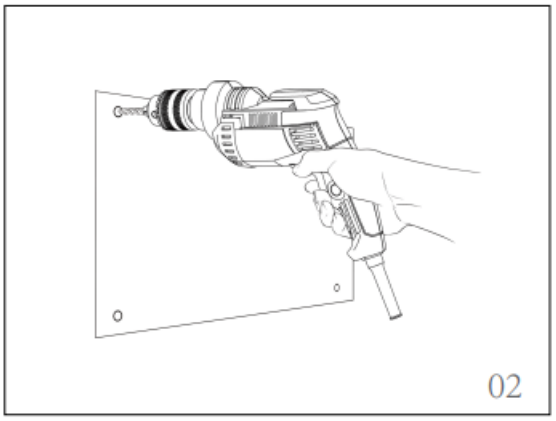
environmental conditions	Scope of the proposal
environmental temperature	-20℃～"55℃
height above sea level	≤2000m
humidity level	5%～95%RH, no condensation
dustiness	≤1mg/m^3
corrosive substance	No pollutants such as salt, acid, smoke, etc.
strongly affect	≤1.5m/s^2
Insects, Pests, Pest Animals, Termites	not have
mould	not have
dampness	rainproof
fire protection	Cabinet top and bottom free of flammable materials

1.4 Installation instructions

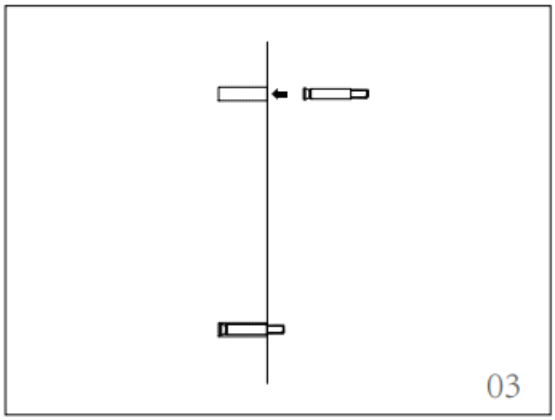
1.4.1 Installation instructions for 20-30KW wall-mounted charging pile



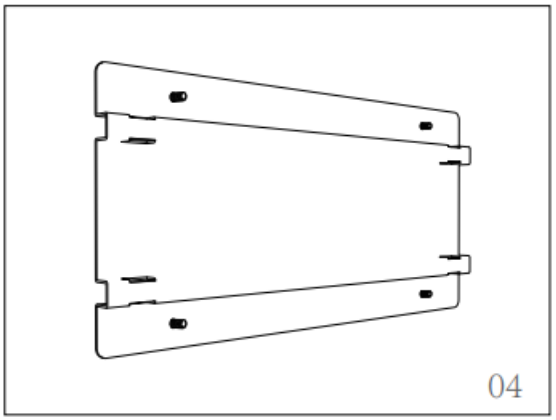
01. Unpack and stick the paper drawing of the internal installation board on the wall.



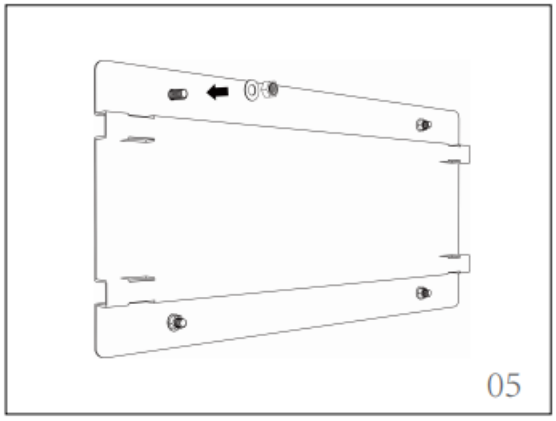
02.Use a 12mm drill bit to drill holes with a depth of 45-50mm.



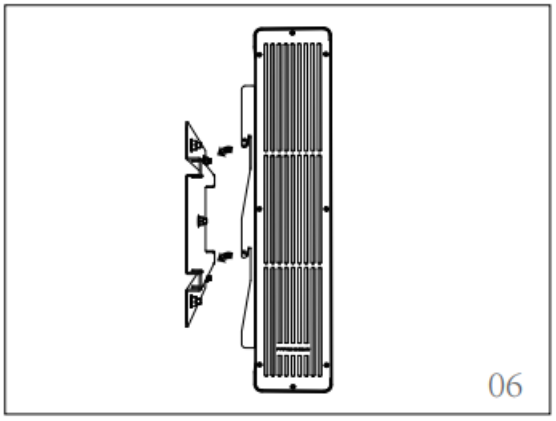
03.Install M8*60 expansion bolts in the holes.



04.Install the device's installation back plate on the expansion bolts .

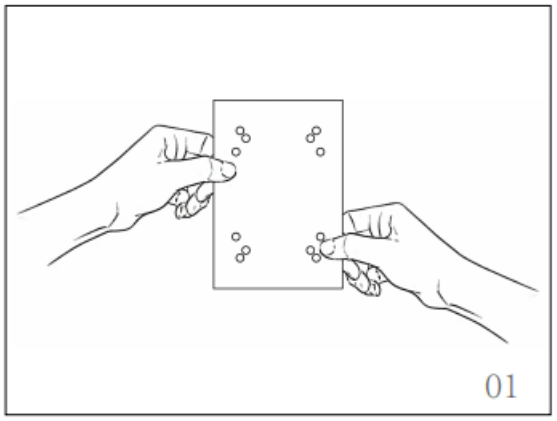


05.Insert the gasket and nut onto the bolt and tighten with a 13 inch wrench.

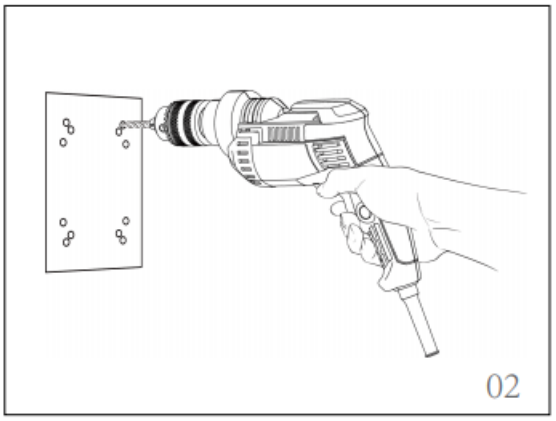


06.Hang the device on the installation back plate and limit it with M4*20 screws.

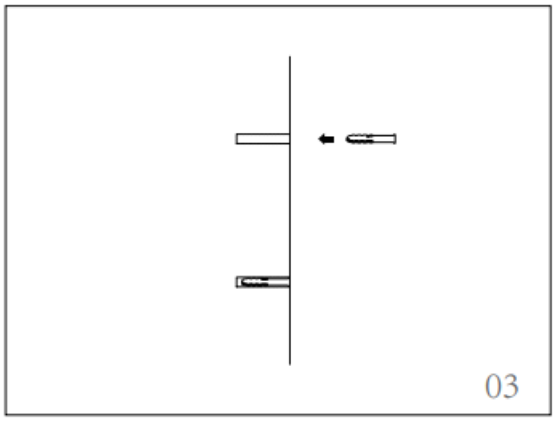
1.4.1 Installation instructions for 20-30KW wall-mounted gun mount



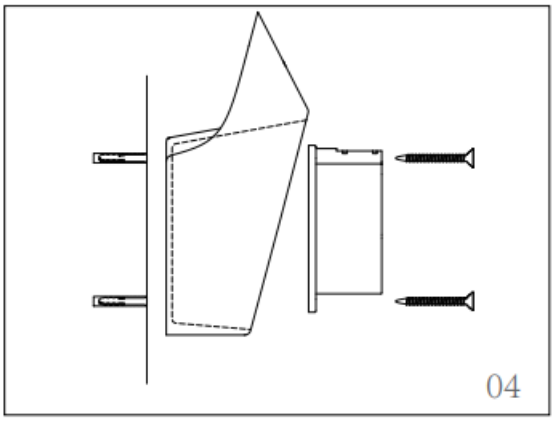
01. Stick the paper drawing of the gun holder on the wall.



02.Use an 8mm drill bit to drill holes. The hole depth should be greater than 60mm.

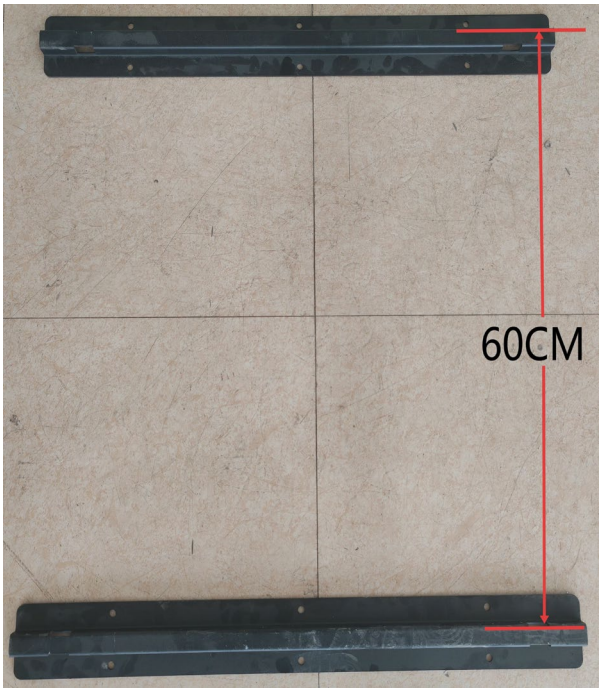


03. Install a ϕ 8*60 expansion plug in the hole.



04.Tighten the gun holder and the gun holder with cross countersunk screws.

1.4.3 Installation instructions for 40-60KW wall-mounted charging pile



01. Fix the two fixed back panels on the wall according to the distance shown in the figure, and mark the hole position for convenient fixing and drilling

02.Two plates shall be drilled with 8mm drill bit according to the hole position in the figure. The hole depth shall be greater than 60mm and installed after drilling setscrew 。

03. Fix the charging pile on the bracket according to the direction shown in the figure.

04. When the charging pile is stable and not shaking, install fixed screws.

2

Electrical connections

2.1 Precautions

⚠警告

- Damage to the unit caused by incorrect wiring is not covered by the unit warranty.
- Only specialized electrical technicians with the corresponding qualifications are allowed to perform operations related to electrical connections.
- When making electrical connections, the operator must be equipped with personal protective equipment.

📖 说明

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 may only be used for protective earthing).

2.2 Cable installation requirements

- The input power cable of the charging pile is introduced from the bottom of the DC pile, and the power cable should be laid through the cable trench and protection pipe, and the recommended cable types are as follows:

Charging pile power	Input Current	Input Residual Current Operated Circuit Breaker
20KW	≤36A	40A, 3P/4P
30KW	≤54A	64A, 3P/4P
40KW	≤72A	80A, 3P/4P
60KW	≤108A	125A, 3P/4P

- The AC lead-in wire is routed from the user's distribution switch and is connected to the switch output terminals when finally ready to energize.
- The power distribution office should have protection devices for overcurrent, short circuit and lightning strike.
- The AC power line colors yellow, green, red, and light blue correspond to AC phases A, B, and C and the zero line, respectively.
- If the power line is only one color, attach a line number marking (or sleeve with marking).

- AC power lines shall be laid out separately from DC lines.
- No breaks, tears or scratches in power lines are allowed
- The order of connecting wires is generally protective earth first, then center, and finally AC phase wires.
- Place all switches, fuses, etc. in the OFF position before making electrical connections.
- The reserved length of the main feeder cable should be 800mm beyond the foundation in the corresponding position, and the reserved length of the matching terminal power cable, control and communication cable and network cable should be 800mm beyond the foundation in the corresponding position.

2.3 Safety and security requirements

- Lightning and surge protection.
- The lightning protection and grounding system complies with the provisions of the current relevant national or ministry standards.
- A corresponding lightning protection unit has been installed on the AC side of the unit to minimize the impact of lightning strikes on the equipment.

3

Commissioning

3.1 Pre-electrification checks

serial	checklist	Qualifying standards
1	Equipment Appearance	• Equipment appearance is in good condition, no damage, no rust or paint loss. • Equipment labels are clearly visible, and damaged labels should be
2	Cable Appearance	• The cable protection layer is well wrapped with no visible damage. • Insert the head of the charging gun into the gun holder of the DC charging terminal and check whether
3	cable connection	• Cable connections are in the same locations as designed. • The terminals are made in accordance with specifications, and the connection is firm and reliable.
4	Case cleaning	The box is clean and tidy, free of excess cables, wires, terminals and tools and other debris. No visible

3.2 Energization check

➢ After the line insulation and grounding meet the requirements, the charging pile is powered up, the charging pile should be able to power up and work, and the status indicator should indicate correctly.

➢ Ensure that the Charging Stack Power Point switch and the Charging Stack AC Input switch are disconnected.

➢ Power-up personnel should not wear rings, watches, or other metal objects that could cause short circuits.

➢ Measure the charger AC input A\B\C\N\PE with a multimeter without short circuit.

➢ Use a multimeter to measure the DC+\DC-\PE of all DC charging terminal heads corresponding to the charger respectively without short circuit.

4

Instructions for Charger

4.1 Power on the equipment

1. Confirm that the above inspection items meet the requirements;

2. Close switch JK1, JK2, JK3 and close the door;

3. Power on: The power-on self-test time is about 1 minute, and the screen is turned on;

4. After the power-on self-test is completed, observe the status of the indicator light.

- Normal standby: the blue light is always on
- Charging cable connection: green light flashes
- Normal charging: the green light is always on
- Device failure: the red light is always on

4.2 Charge Gun Instructions

- Before plugging and charging, observe whether there is any foreign matter inside the charging socket of the vehicle end, whether the reed of the socket is broken; whether there is any foreign matter inside the head of the charging gun, whether the terminals are complete, whether the gun wire is intact.
- Press the charging gun button to pull out the charging gun.
- Insert the charging gun into the socket of the vehicle, push it a little bit hard, and it will be qualified if the hook falls down to the horizontal state.
- If the screen shows “gun connected”, it means the gun is in place, if not, please re-insert the gun.
- Do not operate the charging gun during the charging process.
- After charging, press the button to unplug the charging gun only when the screen shows “Please unplug the gun”. If you are unable to unplug the charging gun, please contact the operator and do not force to unplug the charging gun to avoid damage.
- After unplugging the charging gun, put the charging gun back to its original position and store the cable on the lug.

5

Daily Maintenance Methods of Charger

- The charging gun shall be put back after use and inserted into the gun seat in front of the cabinet to prevent rainwater from entering.
- Chargers without background management system need regular on-site maintenance.
- The dust-proof cotton shall be disassembled and cleaned after 6 months of system operation, and shall be installed and used after being dried. If the dust-proof cotton is not cleaned for a long time, it will cause difficulty in air inlet, increase the module load, and easily cause module damage.

Maintenance object	job content(Every 3 months)	job content(Once a year)
Cleaning of cabinet (External and internal base plates)	Check for dust and dirt	/
Terminal blocks	Check for dust and dirt	Check dust and dirt; Insulation and fastening
Wiring cable	Check for dust and dirt	Check dust and dirt; Insulation and fastening
Air outlet filter screen	Check the dust accumulation and replace the filter screen according to the operating conditions of the equipment	/
Component fastening	/	Check for looseness
Equipment function inspection	/	Charging control functions include man-machine interface, electrical control, safety protection, etc

6

Appendix

The following documents are references to installation manuals for this product.

- GB 50966 Design Code for Electric Vehicle Charging Stations
- GB 50303 Code for Quality Acceptance of Construction of Electrical Works in Buildings
- GB 50254 Code for Construction and Acceptance of Low-voltage Electrical Appliances for Electrical Installation Works
- GB 50168 Specification for the Construction and Acceptance of Cable Lines for Installation of Electrical Installations
- GB/T 51313 Engineering Technical Standards for Decentralized Charging Facilities for Electric Vehicles
- GB/T 18487.1 Conductive charging system for electric vehicles Part I: General requirements
- GB/T 20234.1 Connection device for conductive charging of electric vehicles Part 1 General requirements
- GB/T 20234.2 Connection device for conductive charging of electric vehicles Part 2 AC charging interface
- GB/T 20234.3 Connection device for conductive charging of electric vehicles Part 3 DC charging interface