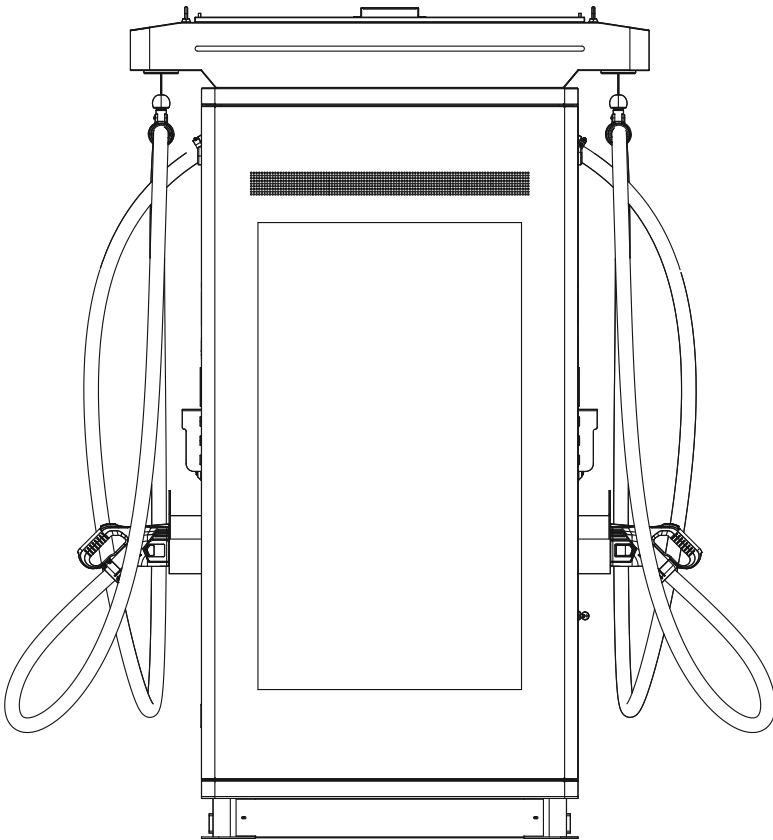


Electric Vehicle DC Charging Station
HBE-DC120~240KW02ST-U-A155NW4G



Catalogue

Features.....	2
IMPORTANT SAFETY INSTRUCTIONS.....	3
CONCERNANT LA SÉCURITÉ CONSERVER CES.....	4
Federal Communication Commission Interference Statement.....	5
CAUTION.....	6
Industry Canada Statement	7
1. Interface.....	9
2. Dimensions.....	11
3. Specifications.....	12
4. Schematic Diagram.....	13
5. Status Description.....	14
6. Installation Instructions.....	15
6.1 Before Installation.....	15
6.2 Contractor Safety Guide.....	16
6.3 Grounding and Safety Requirement.....	20
6.4 Ground Connection.....	20
7. Packing List.....	21
7.1 Main Unit.....	21
7.2 Unpack the charger.....	22
7.3 Recommended Tools for Installation and Inspection.....	23
7.4 Basic Requirements for Installation.....	23
7.5 DC Charging Pile Installation Requirements.....	24
7.6 Installing & Commissioning.....	27
7.7 Inspection Cable.....	28
8. Charging operation.....	30
8.1 Charging operation flowchart.....	30
8.2 Process for Setting Parameters.....	31
8.3 Charging Mode Startup operation interface.....	35
8.4 Troubleshooting.....	38
9. Maintenance.....	39
9.1 General Maintenance.....	39
9.2 Air Filter Cleaning Method.....	42
9.3 Replacement Kits and Accessories.....	43
10. Instruction of Packing, Handling, Transportation and Storage.....	43
11. Limited Product Warranty.....	44

Features

- DC fast charging capacity for rapid charging of electric vehicles.
- Compatible with a wide range of electric vehicle models for versatile usage.
- High-efficiency power conversion for faster and more energy-efficient charging.
- Intelligent charging algorithms to optimize charging speed without compromising battery health.
- Intuitive touch-screen interface for easy operation.
- User-friendly design for both experienced EV users and beginners.
- Seamless integration with mobile app for remote monitoring and control.
- Wi-Fi and cellular connectivity for software updates and real-time monitoring.
- Large 55" HD display for dynamic advertising and promotional content.
- Customizable content management system for easy updating of advertisements.
- Integrated payment system for charging sessions, providing a revenue stream for station owners.
- Advertising revenue potential through the 55" screen for businesses and partners.
- Robust construction for outdoor use and durability in various weather conditions.
- Modular design for easy scalability, allowing for the expansion of charging infrastructure.
- Energy-efficient design to minimize environmental impact.
- Compliance with industry standards for sustainability and eco-friendly practices.
- Compliance with industry standards and safety regulations.
- Accessibility features for compliance with ADA (Americans with Disabilities Act) standards.

Applications

- Public and Private Parking Areas
- Community Parking Areas
- Parking Areas of Hotels, Supermarkets and shopping malls
- Workplace Parking Areas
- Charging Stations
- Highway Rest Areas
- Gas Stations

IMPORTANT SAFETY INSTRUCTIONS



WARNING – When using electric products, basic precautions should always be followed, including the following

- a) Read all the instructions before using this product.
- b) This device should be supervised when used around children.
- c) Do not put fingers into the electric vehicle connector.
- d) Do not use this product if the flexible power cord or EV cable is frayed, has broken insulation, or any other signs of damage.
- e) Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
- f) This charging pile cannot be dismantled, repaired or modified by the customer.
- g) 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 I (Canada) or NOM-001-SEDE Electrical installations (utility) (Mexico) or ANSI/NFPA70 National Electrical Code (USA).
- h) WARNING

GROUNDING INSTRUCTIONS

This product must be connected to a grounded, metal, permanent wiring system, or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment grounding terminal or lead on the product.

- i) When any fault occurs, the product is prohibited to use, the user is prohibited to repair, must be sent to the after-sales maintenance or call the after-sales service for help.
- j) Risk of electric shock.



SAVE THESE INSTRUCTIONS

CONCERNANT LA SÉCURITÉ CONSERVER CES



AVERTISSEMENT: Des mesures de précautions de base devraient être utilisées avec tous les produits électriques, y compris les mesures indiquées ici.

- a) lisez toutes les instructions avant d'utiliser ce produit.
- b) Ce dispositif devrait être supervisé lorsqu'il est utilisé autour des enfants.
- c) Ne mettez pas les doigts dans le connecteur du véhicule électrique.
- d) N'employez pas ce produit si le cordon d'alimentation flexible ou le câble Ev est effiloché, a l'isolation cassée, ou tout autre signe de dommages.
- e) N'utilisez pas ce produit si le boîtier ou le connecteur EV est cassé, fissuré, ouvert, ou montre toute autre indication de dommages.
- f) Cette pile de charge ne peut être démontée, réparée ou modifiée par le client.
- g) Pour réduire le risque d'incendie, branchez uniquement un circuit pour une protection contre les surintensités de circuit de branche conformément à la norme CSAC22.1-15 du Code canadien de l'électricité, partie 1 (Canada) ou à la norme NOM-001-SEDE Electrical installations (utility) (Mexique) ou à la norme ANSI/NFPA 70 du Code National de l'électricité (États-Unis).
- h) **CONSIGNES DE MISE À LA TERRE** Ce produit doit être raccordé à un réseau de câblage mis à la terre, métallique et permanent, ou un conducteur de mise à la terre de l'appareil doit être ajouté au circuit et raccordé à la borne de terre de l'appareil ou au conducteur d'alimentation de l'appareil.
- i) Quand n'importe quel défaut se produit, le produit est interdit pour employer, l'utilisateur est interdit pour réparer, doit être envoyé à l'entretien après-vente ou appeler le service après-vente pour l'aide.
- J) Risque de choc électrique



CONSERVER CES INSTRUCTIONS

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules / Industrie Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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

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.

MPE Requirements

To satisfy FCC / IC RF exposure requirements, a separation distance of 20 cm 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.

Les antennes installées doivent être situées de façon à ce que la population ne puisse y être exposée à une distance de moins de 20 cm. Installer les antennes de façon à ce que le personnel ne puisse approcher à 20 cm ou moins de la position centrale de l'antenne.

La FCC des états-unis stipule que cet appareil doit être en tout temps éloigné d'au moins 20 cm des personnes pendant son fonctionnement.

CAUTION

- Risk of electric shock.
- Do not remove cover or attempt to open the enclosure.
- No user serviceable parts inside. Refer servicing to qualified service personnel.
- Do not use this product if there is any damage to the unit.

WARNING

- This device is intended only for charging vehicles not requiring ventilation during charging.
- THE SUITABILITY OF THE USE OF FLEXIBLE CORD IN ACCORDANCE WITH CE CODE PART 1.
- For use with Electric Vehicles. Ventilation Not Required.
- To reduce the risk of fire, replace only with same type and ratings of fuse.

ATTENTION

- Risque de choc électrique.
- Ne pas retirer le couvercle ni essayer d'ouvrir le boîtier.
- Aucune pièce interne réparable par l'utilisateur. Confier tout travail d'entretien ou de réparation à un technicien qualifié.
- Ne pas utiliser ce produit si l'appareil est endommagé.

AVERTISSEMENT

- Ce dispositif est destiné au chargement des véhicules ne nécessitant pas de ventilation au cours du chargement.
- LA PERTINENCE DE L'UTILISATION DE CORDONS FLEXIBLES SELON LE CODE CE, PREMIÈRE PARTIE Pour utilisation avec des véhicules électriques.
- Aucune ventilation requise.
- Pour réduire le risque de feu, remplacer uniquement par un fusible du même type et de mêmes caractéristiques nominales.

Industry Canada Statement:

This device complies with ISED's license-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Radiation Exposure Statement.

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with greater than 20cm between the radiator & your body

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à plus de 20 cm entre le radiateur et votre corps

This device is intended only for OEM integrators under the following conditions: (For module device use)

- 1) The antenna must be installed and operated with greater than 20cm between the antenna and users, and
- 2) the transmitter module may not be co-located with any other transmitter or antenna.

As long as the 2 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

Cet appareil est conçu uniquement pour les intégrateurs OEM dans les conditions suivantes: (Pour utilisation de dispositif module)

- 1) L'antenne doit être installée et exploitée avec plus de 20 cm entre l'antenne et les utilisateurs, et
- 2) Le module émetteur peut ne pas être coimplanté avec un autre émetteur ou antenne.

Tant que les 2 conditions ci-dessus sont remplies, des essais supplémentaires sur l'émetteur ne seront pas nécessaires. Toutefois, l'intégrateur OEM est toujours responsable des essais sur son produit final pour toutes exigences de conformité supplémentaires requises pour ce module installé.

IMPORTANT NOTE:

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the Canada authorization is no longer considered valid and the IC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate Canada authorization.

NOTE IMPORTANTE:

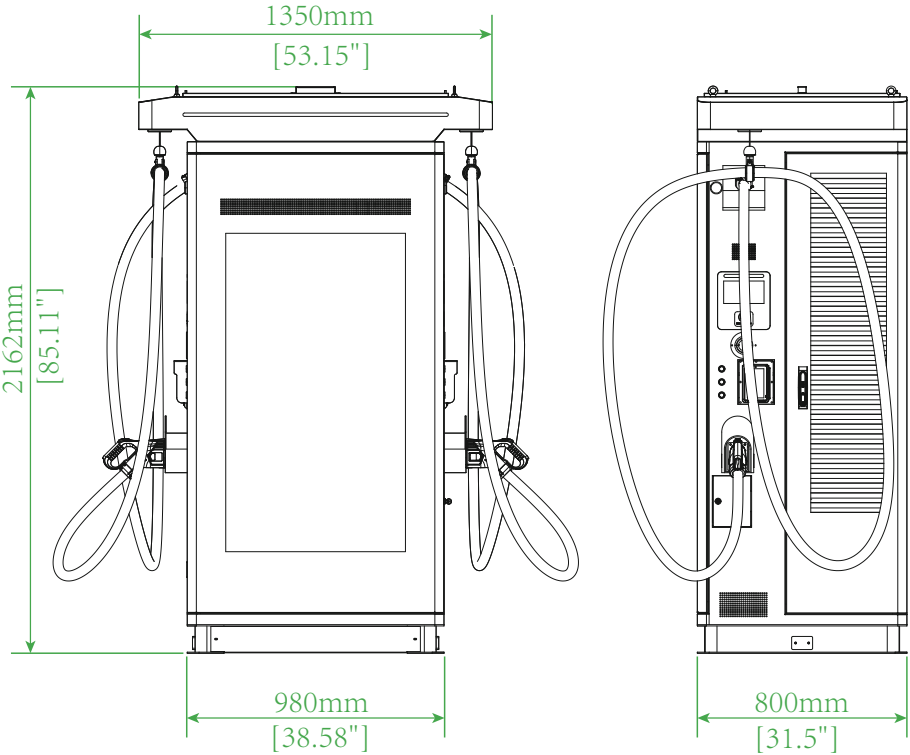
Dans le cas où ces conditions ne peuvent être satisfaites (par exemple pour certaines configurations d'ordinateur portable ou de certaines co-localisation avec un autre émetteur), l'autorisation du Canada n'est plus considérée comme valide et l'ID IC ne peut pas être utilisé sur le produit final. Dans ces circonstances, l'intégrateur OEM sera chargé de réévaluer le produit final (y compris l'émetteur) et l'obtention d'une autorisation distincte au Canada.

1. Interface





2. Dimensions

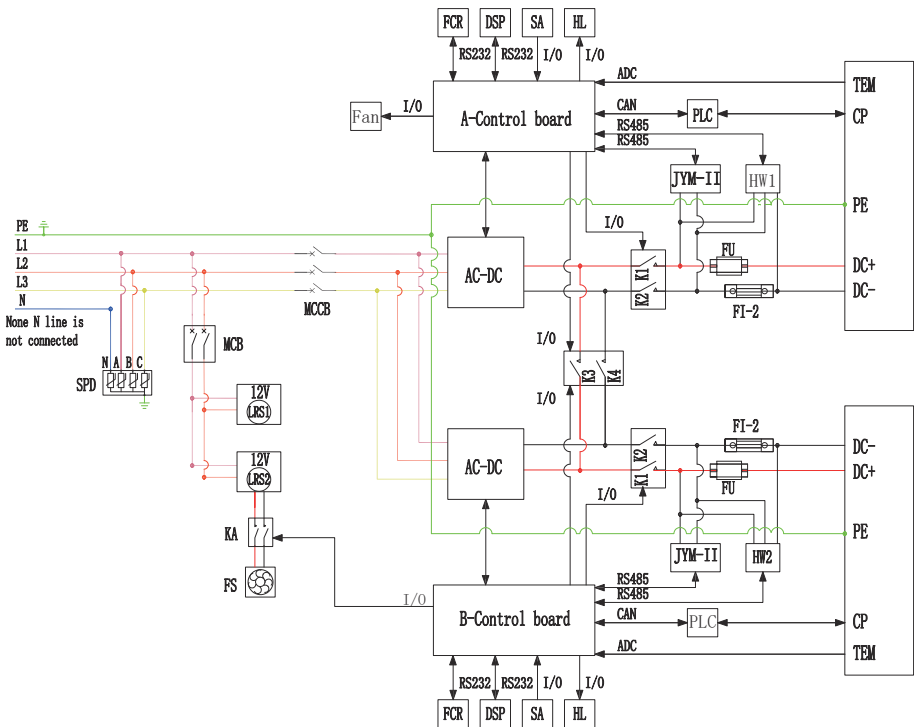


3. Specifications

Model		Specifications		
AC INPUT	Voltage Rating	380V - 480V		
	Rated Current	120KW	180KW	240KW
		155A	232A	310A
	Electrical Distribution	3P+N+PE, 3P+PE		
	Power Grid System	TN-S, IT, TT		
	Frequencywe	50/60Hz		
	Power Factor	> 0.99		
	Efficiency	>95%, at optimize V/ point		
DC OUTPUT	Output Voltage Range	200Vdc~1000Vdc		
	Maximum Output Current	120KW	180KW	240KW
		200A*2	200A*2	200A*2
	Maximum Output Power	120-240KW		
	Simultaneously output mode	0%, 50%, 100% *Each connector will get 50% output power when plugged in simultaneously; And one connector will get 100% when another connector finishes the charging session or only this connector is plugged in.		
	Voltage Accuracy	±0.5%		
	Current Accuracy	±1%		
Communication	External	Ethernet, Wi-Fi, and 4G		
	Internal	CAN/RS485/RS232		
Load Management	Via OCPP			
Input Protection	OVP,OCP,OPP,UDP, SPD			
Output Protection	OCP, OVP, LVP, OTP, IMD			
Internal Protection	OTP,DC Contactor Detection, Fuse Detection			
Electrical Isolation	Isolation between Input and Output			
Standby Power	<100W			
User Interface & Control	Display	7-inch touchscreen LCD(1024 x 600)		
	Button	Emergency shut off		
	User Authentication	App, WebApp, ISO 15118, RFID, Credit Card (Optional)		
	Backend Support	OCPP 1.6 JSON (Upgradeable to 2.1)		
Advertisement Environmental Conditions	Display	55-inch LCD Screen		
	Resolution	TFT-LCD Panel (1080 x 1920 pixels)		
	Operation Temperature	-22°F to 122°F(-30°C to 50°C)		
	Storage Temperature	-22°F to 158°F(-30°C to 70°C)		
	Relative Humidity	5%~95% RH, non-condensing		
	Altitude	≤6560 f(2000m)		

Regulations	Safety	UL2202,UL2231
	EMUEMC	UL2231
	Charging Interface	DIN 70121/ISO15118
	Certification	ETL, Energy Star, FCC
Mechanical Specifications	Dimensions (WxDxH)	53.15x31.5 x85.11 inches (1350 x800 x2162 mm)
	Weight (typ.)	<1543 lbs.(700 kg), includes two charging connectors
	DC Charging Connector	CCS1
	Cooling	Fan cooling
	Ingression Protection	Type 3R
	Anti-vandalism	IK10, excludes LCD & RFID cover

4. Schematic Diagram



5. Status Description



STANDBY
Green light stays steady on in the standby state



CHARGING
Green light stays flashing in the charging state



FAULT
Red light stays steady on in the fault state

6. Installation Instructions

6.1 Before Installation

Read all the instructions before using and installing this product.

- Do not use this product if power cable or charging cable have any damage.
- Do not use this product if the enclosure or charging connector are broken or open or if there is damage.
- Do not put any tool, material, finger or other body part into the charging connector or EV connector.
- Do not twist, swing, bend, drop or crush the charging cable. Never drive over it with a vehicle.



Warning: The product should be installed only by a licensed contractor and/or licensed technician in accordance with all building codes, electrical codes and safety standards.



Warning: The product should be inspected by a qualified installer prior to initial use. Under no circumstances will compliance with the information in this manual relieve user of his /her responsibilities to comply with all applicable codes and safety standards.

- Power feed must be 3 Phase Wye configuration with TN-S/ TT/ IT grounding systems.
- In the installation of TN(-S) system: the neutral (N) and the PE of the power distribution are directly connected to the earth. The PE of the charger equipment is directly connected to the PE of power distribution and separate conductor for PE and neutral (N).
- In the installation of TT system: the neutral (N) and the PE of the power distribution are directly connected to the earth. The PE of the charger equipment is isolated to the PE of power distribution to the earth.
- The product should be installed in free air area and keep at least 30cm (12 inches) clearance distance to all air vent of the product.
- Recommend to keep not less than 107cm (42 in.) clearance distance from all around the product following NEC table 110.26 condition 2.151-600V.



NOTICE

It is recommended to conduct Wi-Fi and 4G signal strength while charger installation. The RSSI (Received Signal Strength Indication) value is considered as good as higher than -65dBm. Poor connection quality might interrupt charging process or data transaction.

6.2 Contractor Safety Guide

- A safe work environment for everyone - participants, installation and demolition crews, contractors and subcontractors.
- Ultimately, it is the responsibility of contractors to ensure the safety and safe work practices of the employees and subcontractors who may be working at the site on their behalf.
- This guide provides a simple reference guide with basic rules for implementation. This guide does not outline every single safety standard: it is designed to be a supplement to participants, contractors and subcontractors.
- Contractors, subcontractors and employees should cooperate with their employers and other persons in complying with safety regulations and instructions.
- In particular, employees should:
 - Obtain the qualified authorization of the responsible unit in the construction area.
 - Work safely
 - Do not do anything to endanger themselves or other persons.
 - Use personal protective equipment as required and take reasonable care of it when it is not in use
 - Report unsafe activities immediately to supervisors or the responsible person in control of the workplace, and
 - Report all accidents and dangerous occurrences to the supervisor immediately.

1- Reference standards



Adhere to the following codes:

- NFPA-70E-2021 Sec 110.3 (Electrical Safety in the Workplace)
- NFPA-70E -2021 Sec 130.4 (Shock Risk Assessment)
- NFPA-70E -2021 Sec 130.5 (Arc Flash Risk Assessment)

2- Requirements for workplace conditions



- Set up suitable fencing to isolate the construction area from outside
- Close and secure all entrances when the site is unattended
- Hang warning notices nearby which show the following information: warning icon and phone number of people in charge
- Install sufficient lighting fixtures

3- Cleaning up



- Keep work areas (including accessways) free from debris and obstructions
- Keep ground surfaces tidy and flat, to avoid people tripping or being hurt by tools or other objects
- Stack and store equipment and materials in a tidy and stable manner
- Regularly clean up and dispose of waste
- Remove all surplus materials and equipment after completion of work

4- Fire hazards

- Beware of flammable materials and goods. Keep them away from work areas.

5- Protection against high temperatures on the worksite



- Erect a sunshade or shed to shelter workers from the heat and sun
- Set up cooling equipment, such as exhaust fans
- Make water dispensers available
- Provide suitable protective clothing such as hat, sunglasses and long sleeves to protect workers from heat stroke and UV rays

6-Inclement weather



- Secure all scaffoldings, temporary structures, equipment, and loose materials
 - Check and implement SOP to ensure disconnection of gas supplies, electrical circuits and equipment
 - Inspect worksites to ensure protection against ingress of water or dust
 - Inspect the drainage system for blockages and remove if found
- Stop all outdoor works except for emergency works

7- Ladders



- Only use ladders that meet local safety regulations
- When working at height, it is recommended to use platforms instead of ladders
- If using a platform is not practicable, a supervisor should assess the potential risk and provide safety
- protection equipment for workers
- Use non-conductive ladders made of glass-fiber or reinforced plastic when carrying out electrical work
- Assign assistants to provide support when working on ladders
- Check all ladders for broken rungs or other defects before use and periodically
- Fully open stepladders when in use
- Do not overreach when working on a ladder
- Beware of overload restrictions

Country	Standards
USA	ANSI A 14.1, ANSI A 14.2, ANSI A 14.5
Canada	CSA Z11 M81

8- Working at height



- Avoid working at height by using alternative tools and methods as far as practicable
- It is strongly recommended to build suitable scaffolding or work platforms
- Provide fall arrest systems for workers if it is impracticable to use working platforms
- Secure all materials and tools to prevent them falling from height

9- Lifting operations



- Have lifting gear and apparatus regularly inspected and tested by qualified persons
- Isolate and cordon off lifting areas to keep out non-construction personnel
- Ensure that lifting routes do not cross buildings or people, and avoid collision with objects
- Do not exceed safe working load limits

10-For on-site workers



- Plan all work
- Turn off power (work with live parts de-energized whenever possible)
- LOTO (Lock Out, Tag Out)
- Live electrical work permit (input terminals with HV after door open)
- Use personal protective equipment (PPE)
- Safe workplace conditions and space
- Adhere to other occupational health, safety and security codes, such as those published by OSHA

6.3 Grounding and Safety Requirement

- The product must be connected to a grounded, metal, permanent wiring system, Connections shall comply with all applicable electrical codes. Recommend the ground resistance be less than 10Ω.
- Ensure no power is connected at all times when installing, servicing, or maintaining the charger.
- Use appropriate protection when connecting to main power distribution network.
- Use appropriate tools for each task.



CAUTION: The disconnect switch for each ungrounded conductor of AC input shall be provided by installation contractor or technician in accordance with the National Electric Code, ANSI/NFPA 70.



CAUTION: A cord extension set or second cable assembly shall not be used in addition to the cable assembly for connection of the EV to the EVSE.

6.4 Ground Connection

Always connect the Neutral at the service to Earth Ground. If ground is not provided by the electrical service then a grounding stake must be installed nearby. The grounding stake must be connected to the ground bar in the main breaker panel and Neutral connected to Ground at that point. 480Vac (Line to Line) Three-Phase



DANGERS

Be Aware of High Voltage!

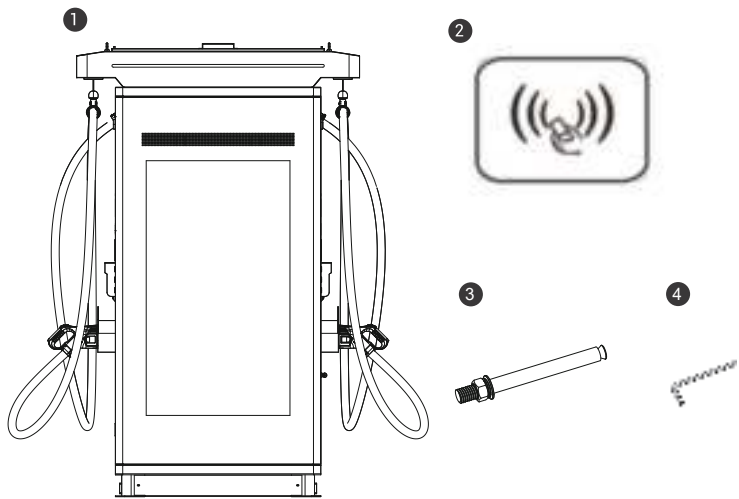


WARNING!

Earth Connection is Essential!

7. Packing List

7.1 Main Unit



No.	Product Name	Qty	Notes
1	DC Charger (With Charging Cables)	1	
2	RFID card (RFID Version Only)	2	
3	M10 expansion screws	4	
4	Opposite side 3mm HEX Wrench	2	The cable puller clamp uses a fixed charging gun cable

7.2 Unpack the charger

- The product is direct current (DC) charger and the packing design passed the packaging simulation test. If the packaging damage caused by overturning, falling or external impact during transportation, it may cause the product damage or defects. If there is any serious damage to the packaging when receiving the goods, please notify the supplier about your findings.
- The product is delivered by transport company to warehouse or specified location where it will be handed over. Transporting the charger to its final location (last mile service) is not standard included in the order.
- NOTICE: The delivery truck unloads the pallet carrying the charger. The movement of the charger to its final location is the responsibility of the customer / contractor.

If the packaging or charger is damaged

- Do not refuse the shipment /receipt.
- Make a notation on the delivery receipt and inspect cabinet for damage.
- If damage is discovered, leave cabinet in original package and request immediate inspection from carrier within 3 days of delivery.
- Contact the supplier by mail or phone to address your findings.



WARNING!

Charger weight might be 1322 lbs. (600 kg). Charger with package might be 1499 lbs. (680 kg).
Be careful during unpack process.

7.3 Recommended Tools for Installation and Inspection

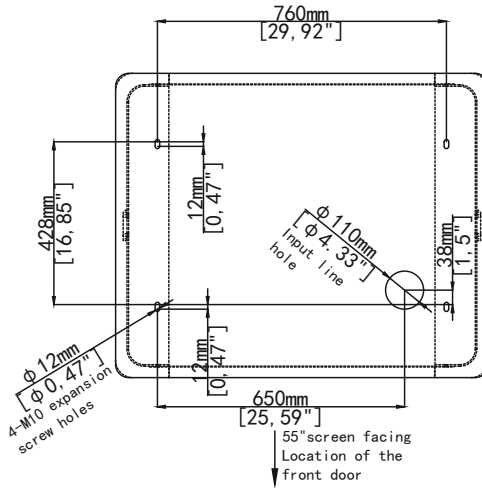
Recommended Tools for Installation

Type	Description	
Cross Screwdriver	PH1 or PH2 L=100~200mm	
Adjustable wrench	17 mm metric sleeve (for M10 screw securing 480V input line) 14 mm metric sleeve (for M8 screw ground and M8 nut on top) 17 mm metric wrench (for base M10 expansion screw fixation)	
Socket screwdriver	No	
Electrical tape	Black/15mm (0.6inch) Width	
AC input cable	120KW	XLPE, 1AWG*5、1AWG*4、
	180KW	XLPE, 0AWG*5、0AWG*4
	240KW	XLPE, 3/0AWG*5、3/0AWG*4
Electric drill	One manual electric drill (Diameter $\phi 14$)	
AC Breaker	120KW	200A(Leakage switch)
	180KW	300A(Leakage switch)
	240KW	400A(Leakage switch)
Wire nipper	One	
Needle-nose pliers	One	
Heavy duty copper lug joint heat shrink sleeve copper lug hydraulic pliers	Copper DTS-70(6pcs)、Hydraulic tongs YQK-120	

7.4 Basic Requirements for Installation

- Reserve not less than 1 meter space around for the charger
- Chargers must be installed on customized concrete
- The height of concrete should be 200MM above the horizontal ground mounting holes in the cement base must be $> 100\text{mm}$ to the edge of the base and the vertical inclination should not exceed 5degrees.
Drill $\phi 14$ holes in the cement base according to the drawing spacing and install M10 expansion screws
- Place the body into the corresponding hole on the base and tighten the screws
- The charging pile and cement base should have reliable grounding connection, the grounding resistance must be less than $4\ \Omega$
- Attention: Rat control measures must be taken inside the pile body

7.5 DC Charging Pile Installation Requirements



Build a cement pier on the ground 1200*1000*200mm (47.244"*39.37"*7.87")

