



# MANUAL DE INSTRUCCIONES

## **DC 60-240W**

TS-EDC60-001 / 002  
TS-EDC90-001 / 002  
TS-EDC120-001 / 002

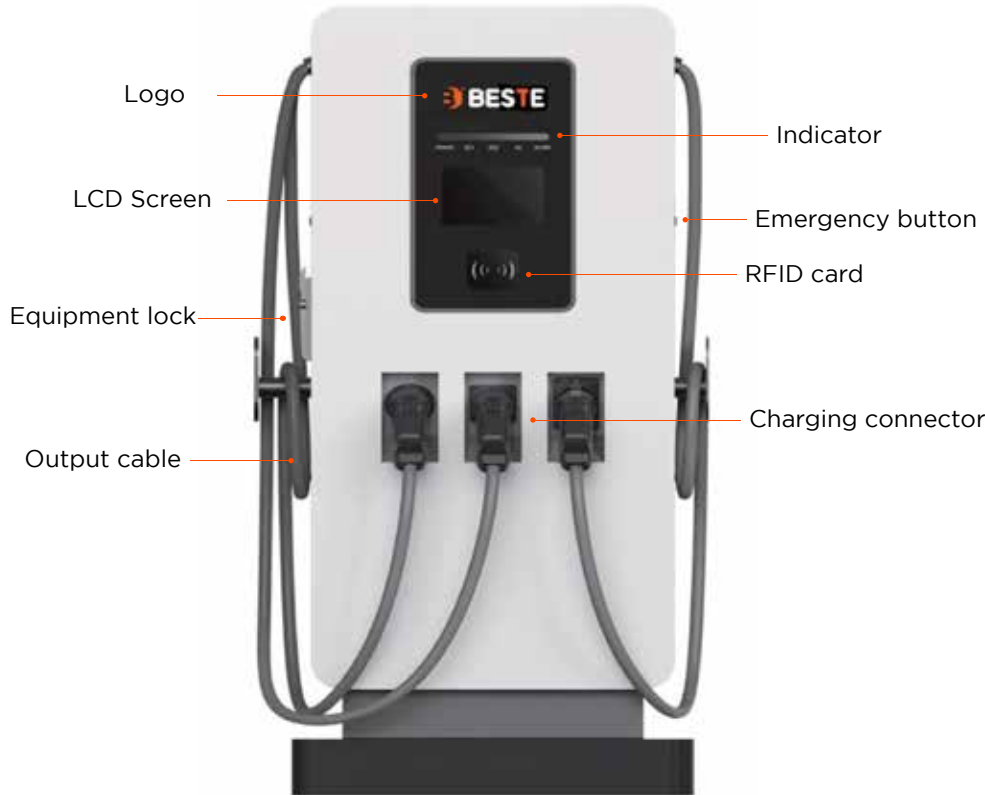
TS-EDC150-001 / 002  
TS-EDC180-001 / 002  
TS-EDC240-001 / 002

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**PRODUCT OVERVIEW**

**OVERALL FEATURES**



- **Multiple standard charging port combinations to choose from.** CCS, CHAdeMO, GB/T and CCS1 can be combined and customized.
- **Diverse power range.** Multiple power options are available, ranging from 30 KW to 480 KW with customizability.
- **High voltage output.** The maximum output voltage can reach 1000V, meeting the needs of the vast majority of electric vehicles on the market.
- **Intelligent operation.** It can not only operate on our platform but also connect with various OCPP platforms.
- **Backend monitoring.** The status of the charging station can be monitored in the background.
- **Load balancing.** More effective connection to the load system.

## PARAMETER INSTRUCTIONS

Specification				
Model	TS-EDC60-001 TS-EDC60-002	TS-EDC90-001 TS-EDC90-002	TS-EDC120-001 TS-EDC120-002	
Electrical properties				
AC Input	Input rating	AC380V(±15%) 3ph		
	AC input connection	3P+N+PE		
	Rate input current	3Ø100A	3Ø150A	3Ø200A
	Frequency	50/60Hz		
	Power Factor	≥0.99		
	Efficiency	≥95%		
	Charging cable sensitivity (mA)	5 (mA)		
DC Output	Output voltage range	150V-1000V		
	Max. Output current	200A(system)	300A(system)	400A(system)
	Max. Output power	DC60kW	DC90kW	DC120kW
	Voltage Accuracy	≤±0,5%		
	Current Accuracy	≥±1%		
	Charging cable sensitivity (mA)	5 (mA)		
AC Output	Max output current AC (-002 version)	32A	32A	32A
	Max output power AC (002 version)	AC22kW	AC22kW	AC22kW
	Voltage Accuracy	≤±0,5%		
	Current Accuracy	≥±1%		
	Charging cable sensitivity (mA)	5 (mA)		
User Interface & Control				
Display	10.1" touch screen			
Screen material	LCD			
Push buttons	Operation buttons / Emergency buttons			
User authentication	RFID,OCPP,QR code. Password application			
Suppoty language	English (other languages available upon request)			
Communication				
External	Ethernet,WIFI,3G/4G			
Internal	CAN,RS485,RS232			
Environmental				
Operating temperature	-30C - +50C			
Humidity	<95% relative humidity. non-condensing			
Altitude	≤2000m (6000feet)			

Mechanical	
Ingress protection	IP55
Enclosure protection	IK10
Cooling	Air forced
Installation method	Floor mounted
Protection	
Protection	Over current, undervoltage, over voltage, residual current, surge protection, short circuit, over temperature, ground fault
Regulation	
Certificate	CE
Standard	EN IEC-61851-1:2019; EN61851-23:2014; EN61851-24:2014; EN IEC61851-21-2:2021
AC charging standard	Type 2
DC charging standard	CCS2, Chademo & GB/T

**OPERATING INSTRUCTIONS**

**1. Idle**



**3. Click RFID and swipe the card**



**2. Insert connector**



**4. Start charging**



### 5. Charging



### 6. Charging information



### SET UP WIFI AND OCPP

1. Click 



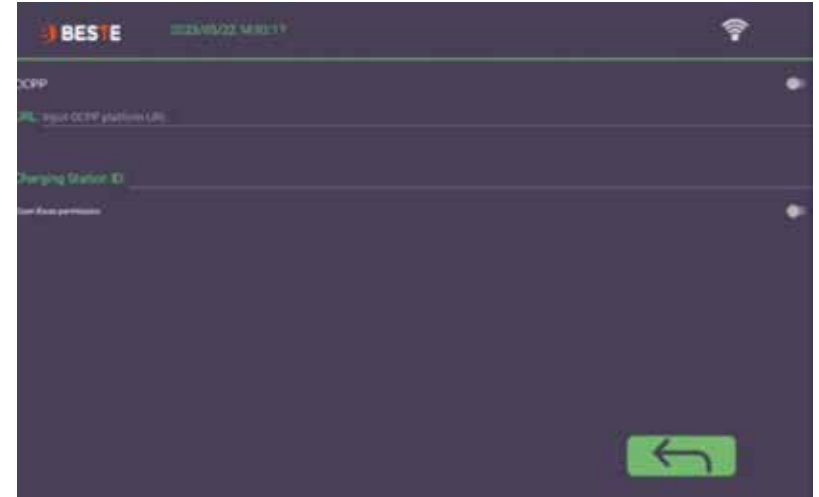
2. No password Enter



### 3. Setting



### 5. OCPP Settings



### 4. Network settings



### Charging mode and method

APP/RFID Mode: support QR code scanning and RFID prepaid charging mode.



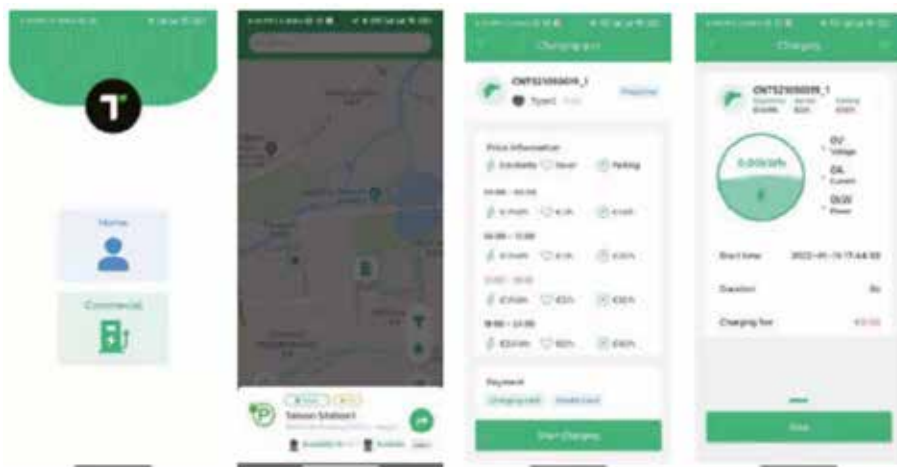
APP/RFID Mode Operation Diagram

### Plug & Charge: no billing mode



Plug&Charge Mode Operation Diagram

### Teison APP operation diagram shown as below:



## INSTALLATION INSTRUCTIONS

### 1. Scope

This manual is specifically for Beste DC model products. Before using the product, please read this manual carefully and ensure that the installation and operation are carried out according to the instructions. Please keep the installation instructions in a safe place for maintenance or reference during operation.

## INSTALLATION PREPARATION

### 1. Installation environment

- This charging station is an outdoor electric vehicle charging station that meets the IP55 protection level and is suitable for installation in dry and less dusty environments.
- The foundation must ensure the stability and safety of the charging station installation position.
- Please ensure that the operating temperature is within the range -30C to +50C to ensure that the charging station operates in an optimal state.
- When the charging station is installed in an open-air environment, in order to better improve user experience and satisfaction, it is recommended to arrange a rainshielding roof above the device to prevent rain from directly falling on the device and facilitate user operation.
- The charging station installation environment should be well-ventilated and away from water sources, heat sources, and flammable and explosive materials. Avoid installing the charging station in an environment with direct sunlight, dust, volatile gas, corrosive substances and excessive salt content.

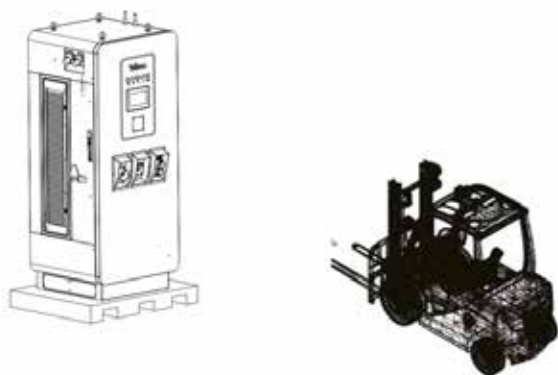


## 1.1 Installation spacing

- The foundation must have a certain bearing capacity to support the weight of the charging station. Please place the charging station in a reasonable position on the foundation according to the size of the charging station.
- If the site conditions permit, it is recommended to leave more space between the machine and the surrounding device or walls for heat dissipation and maintenance to ensure the stable and efficient operation of the charging station.

## 2. Handling method

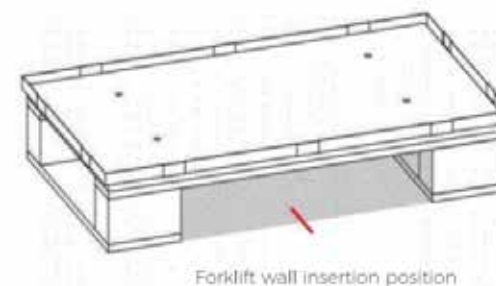
- The charging station can be handled with a forklift. When forking the machine, the center of gravity of the machine should be at the center of the two forks, and the handling process should be kept slow and steady.
- When forking the machine, the center of gravity of the machine should be at the center of the two forks, and the handling process should be kept slow and steady.
- When lifting the equipment with a forklift, please ensure the stability of the fork and keep the left and right balance.
- During the moving process. Please the charging station vertical and should not be put down or lifted suddenly.



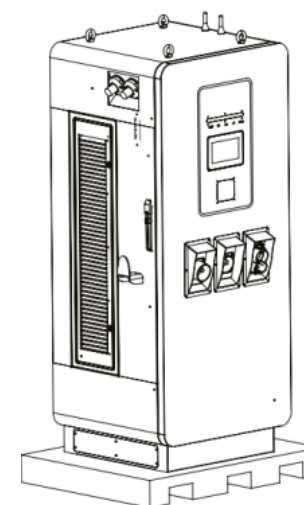
## 3. Unboxing

**Step 1:** Check if the appearance of the device packaging is intact and if there is any transportation damage. If there is any damage, please notify the carrier immediately.

**Step 2:** Transport the device to the designated location. To prevent the device from tipping over during transportation, when using an electric forklift or a manual forklift for transportation, insert it from the front of the wooden pallet as shown in the figure below.



**Step 3:** Remove the outer packaging, take out the foam pad and plastic bag and extract the optional accessories and accompanying materials.



**Step 4:** Check equipment integrity.

- Inspect the appearance of the machine and check for any transport damage. If any damage is found please notify the carrier immediately.
- Check the model and completeness of the random accessories against the packing list. If any accessory is found to be missing or the model is incorrect, please make a record on-site in a timely manner and contact the company or local office immediately.

**Step 5:** After confirming that the equipment is intact, remove the anti-collision plastic protective film on the equipment.

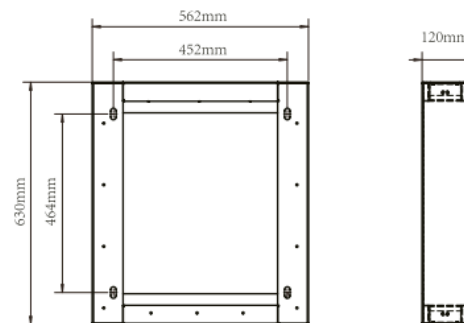


Figure 3: 240kw Installation dimension

**4. Installation steps**

In order to facilitate the installation and maintenance of the cables, the cement base needs to reserve corresponding grooves, as shown in the figure below.

**Step 1:** Select the planned installation site according to the DC chargers size and installation distance required between chargers.

**Step 2:** According to the installation hole size, use a percussion drill to drill 4 holes with a diameter of 18mm and a depth of 100mm on the cement base, as shown below (size of cement base 1000mm\*1000mm\*200mm).

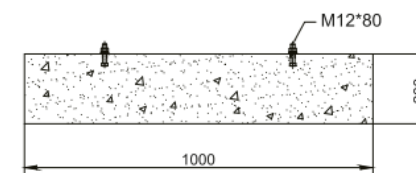


Figure 4: Size of cement base

**Step 3:** Drive 4PCS M12\*80 expansion bolts into the cement base.

**Step 4:** Use forklift to move the DC charger from the wooden bracket to the ground, align the mounting holes of the DC charger with the expansion bolts on base, put on O-12 flat pads and spring pads, then lock. (In order to prevent the charger from falling over, the forklift arm must be inserted from the front or back of the charger when move it to the cement base. During the movement, the tilt angle should not be too large to avoid the slipping. Do not put down or lift suddenly).

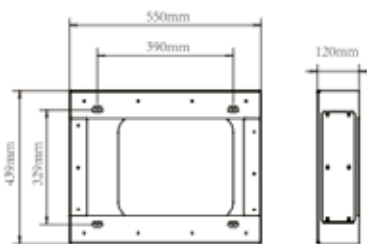


Figure 1: 60kw Installation dimension

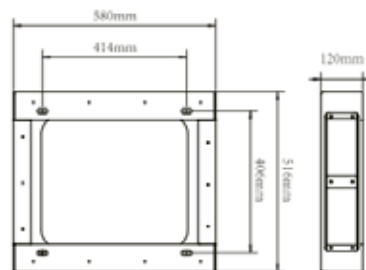


Figure 2: 90-180kw Installation dimension

**Step 5:** Hoisting use hole bolts or eye bolts to tighten and fix the bolt holes at the four corners on the top of charger, the lifting rings are firmly connected with the lifting equipment and a balanced connection is required carefully lift the charger to the installation position.



A Rotating eye bolts or lifting ring bolts  
 B Lifting equipment  
 C Charger

**Step 6:** Connect the corresponding incoming cables to complete the installation.

## 5. Electrical Connection

### 5.1 Selection of incoming line

Common selection of incoming line:

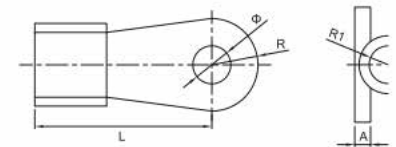
Output power of charger (No AC)	Incoming type
60kW	wdz-yjv22-0.6/1kv-3x35mm <sup>2</sup> +2x16mm <sup>2</sup>
90kW/120kW	wdz-yjv22-0.6/1kv-3x70mm <sup>2</sup> +2x35mm <sup>2</sup>
150kW	wdz-yjv22-0.6/1kv-3x95mm <sup>2</sup> +2x50mm <sup>2</sup>
180kW	wdz-yjv22-0.6/1kv-3x120mm <sup>2</sup> +2x70mm <sup>2</sup>
240kW	wdz-yjv22-0.6/1kv-3x185mm <sup>2</sup> +2x120mm <sup>2</sup>

Lorem ipsum

### 5.2 Connector selection

There are two modes of copper terminal connectors. OT and DT

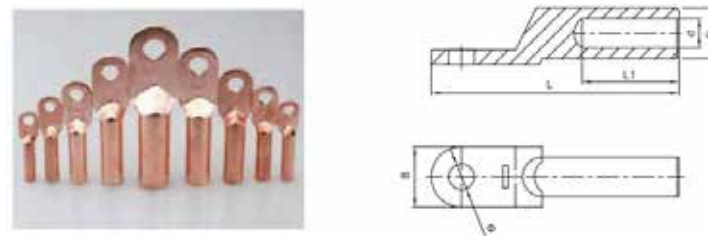
- If it is a flexible cable, it is recommended to use the OT series of wire noses, also known as open wire noses. We recommend using the OT-200A for our electric vehicle charging station. The following figure shows more OT types.



Catalog No.	Dimensions(mm)					
	Φ	H	L	R	RI	A
OT-10A	5.2	6	14.5	4.6	2	0.8
OT-20A	6.2	7	17	5.5	2.5	1
OT-30A	6.2	8.2	19	5.8	3.2	1.2
OT-40A	6.2	9	19.5	6.2	3.5	1.2
OT-50A	6.2	9	23	6.5	3.5	1.2
OT-60A	8.2	10	24	7	4	1.4
OT-80A	8.2	11	25	8	4.5	1.5
OT-100A	8.2	12	29	8.5	5	1.5
OT-150A	10.2	12	31	9	5.5	1.6
OT-200A	10.2	14	33	10	6	1.7
OT-250A	10.2	15.5	36	10.5	6.5	2
OT-300A	12.2	16	40	11.5	7	2
OT-400A	14.2	18	43	13	8	2.2
OT-500A	14.2	20	46	14.5	8.5	2.4
OT-600A	16.2	22	50.5	16	10.5	2.8
OT-800A	18.2	26	61	17.5	12.5	3.2
OT-1000A	18.2	33	66	20.5	15.5	3.8

Figure 1-1 OT copper terminal connector

- If it is a hard cable, the cable connector used is the DT model, which is a tubular cable connector. This model is marked by the square of the wire, and the size of the wire nose is selected according to the cross-sectional area of the wire. For example, the wire nose model of a 70mm<sup>2</sup> cable should be DT-70. The following figure shows more DT types.

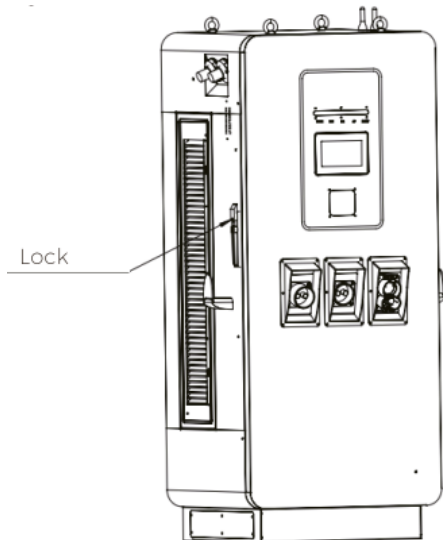


Catalog No.	Dimensions(mm)					
	Φ	D	d	L	L1	B
DT-10	8.5	9	5.3	62	28	16
DT-16	8.5	10	6.5	68	30	16
DT-25	8.5	11	7	70	33	18
DT-35	10.5	12	8.58	80	36	20.5
DT-50	10.5	14	9.5	85	38	23
DT-70	12.5	16	11.5	95	43	26
DT-95	12.5	18	13.5	104	46	28
DT-120	14.5	20	15	112	49	30
DT-150	14.5	22	16.5	120	51	34
DT-185	16.5	25	18.5	125	55	37
DT-240	16.5	27	21	136	60	40

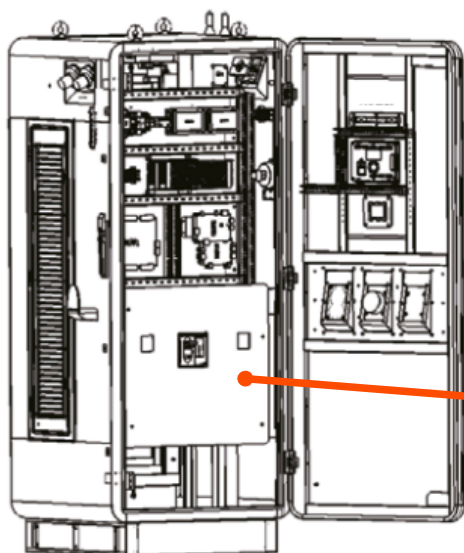
Figure 1-2 DT copper terminal connector

### 5.3 Wiring steps

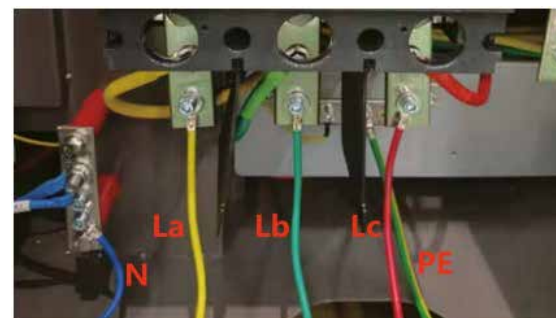
**Step 1:** Use the key to unlock the charging station door lock, the lock position is shown in the following figure.



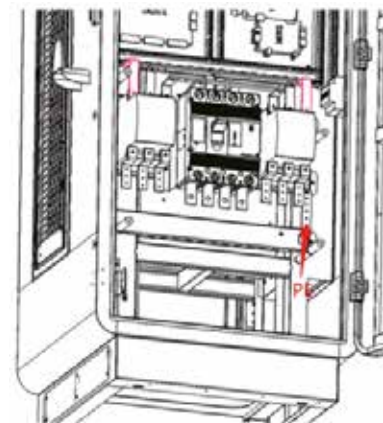
**Step 2:** Open charging station door panel and thread mains input cable out of the trench, and connect the respectively to the L1/L2/L3/N phase below the AC circuit breaker. The wiring diagram is shown in the following figure.



Remove the acrylic protective plate before wiring



**Step 3:** Pull the ground wire out of the incoming cable trench and connect it to the grounding copper busbar. The position of the grounding copper busbar is shown in the following figure. Make sure that the ground wire is connected to the ground wire in the area, and ensure good grounding and ensure that all ground wires and grounding devices are reliably grounded to avoid electrification of the cabinet shell.



**Step 4:** After the wiring is completed and all the connections are confirmed to be correct, seal the cable gal with fire-proof mud.

**Step 5:** After the installation of the charging station is completed, the protective film of the touch screen can be torn off if necessary.



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