思特克電源
SETEC POWER

SETQCY EV Charging station

SET450-40B

Manual

IMPORTANT

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.

This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications.

It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.

If you have any suggestions for improvements or amendments or have found errors in this publication, please notify us.

All pertinent state, regional, and local safety regulations must be observed when installing and using this product.

For reasons of safety and to help ensure compliance with documented system data, only the manufacturer should perform repairs to components.

When devices are used for applications with technical safety requirements, the relevant instructions must be followed.

Failure to use software or approved software with our hardware products may result in injury, harm, or improper operating results.

Contents

IMPORTANT SAFETY INSTRUCTIONS

1. SAVE THESE INSTRUCTIONS

This manual contains important instructions for 20KW DC Fast Chargers that shall be followed during installation, operation and maintenance of the unit.

2. Read instructions carefully and become familiar with the equipment before attempting to install, operate, or maintain it. The following special messages may appear throughout this document or on the equipment to warn of potential hazards or to call attention to information that explains a procedure.

LOOK FOR THIS SYMBOL TO POINT OUT SAFETY PRECAUTIONS. IT MEANS: *BE ALERT—*
***YOUR SAFETY IS INVOLVED.* IF YOU DO NOT FOLLOW THESE SAFETY INSTRUCTIONS,**
INJURY OR PROPERTY DAMAGE CAN OCCUR.

READ FIRST: There is important safety information throughout this document.
Read this manual in its entirety before attempting any owner maintenance or trouble shooting.

QUALIFIED: **DC** chargers must be installed, uninstalled and serviced by a qualified electrician in full compliance with all local and regional electric authorities.
This manual and its content do not in any way, relieve the reader of responsibility to follow local safety codes and standards.

ELECTRIC SHOCK! : DC chargers are fed by more than one 240VAC circuit breaker. The potential for lethal electrical shock exists. Service to internal parts of a charger may only be performed by a qualified technician.

DO NOT MODIFY: This charger should not be modified in any way. This will void the warranty, compromise protection and could result in a possible shock or fire hazard.

DANGER : To reduce the risk of fire or electric shock, carefully read and follow these important safety and operating instructions before installing or operating the charger.

DANGER: Risk of electric shock. Disconnect charger from EV and ac power before servicing. Turning off the charger does not reduce this risk.

DANGER: Do not touch un-insulated parts of the output connector.
A possibility of serious electrical shock exists.

DANGER: Do not operate the charger with damaged cable, including cables with exposed conductors or damaged connectors. Replace damaged cables before operation.

DANGER: Case of rain, must refrain from the use of a charger.
This a risk of electrical shock.

DANGER: Do not disassemble the charger. Have the charger examined by your dealer's qualified service technician. Incorrect re-assembly of the charger may result in an explosion, electric shock, or fire.

DANGER: Inlet area of vehicle and the charger connector in the wet state, the charger should not be used.

DANGER: Disconnect both AC and DC power from the charger before opening the case.
Contact with live components within the charger could cause electrical shock, serious injury, or death

DANGER: Install and ground the charger in accordance with the national electric code and your local electric code. Failure to properly ground the charger could result in a fatal electric shock.

WARNING: Do not leave the charger unattended while charging.

WARNING: Do not allow water, moisture or foreign objects into the charger.

WARNING: Do not place the charger on or near a flammable object while in use. Keep away from carpets, cluttered workbenches, etc.

WARNING: Do not cover the air intake holes on the charger as this could cause the charger to overheat.

WARNING: Young children should be supervised to ensure that they do not play with the appliance.

WARNING: The user is responsible for conforming to all local and national electrical codes and standards applicable in the jurisdiction this equipment is installed in to.

WARNING: Do not connect or disconnect the plug while the charger on. Doing so will cause arching and burning of the

connector resulting in charger damage or battery explosion.

WARNING: Do not operate the charger with the door open or with any panels removed.

WARNING: Do not operate the charger if it has been dropped, received a sharp blow, or otherwise damaged in any way. Call your service representative.

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WARNING:- Dusty environments may require more frequent maintenance to obtain maximum life and optimum performance.

1. INTRODUCTION

Thank you for purchasing this 20KW charger. We are sure you will be pleased with its performance and features. In order to ensure that you obtain the maximum from its operation,please read the following instructions carefully.

Please note that this charger has been designed to be used solely with electric vehicles. It should not be used for charging other types batteries.

2. RECEIVING THE CHARGER

Unpack the charger and examine it for shipping damage. In the event that shipping damage is found, report it as a claim with the freight company.

Check the charger nameplate against packing lists and purchase orders to verify receipt of proper equipment. If there are any discrepancies notify the shipper immediately.

All shipments leaving manufacturing have been carefully inspected. If a shipment arrives with the crating or packing damaged, have the carrier note the condition on the receipt. Check as soon as possible for concealed damage. If damage has occurred, notify and file a claim with the carrier at once. Do not return the unit to the shipper. Failure to follow this procedure may result in refusal by the carrier to honor any claims.

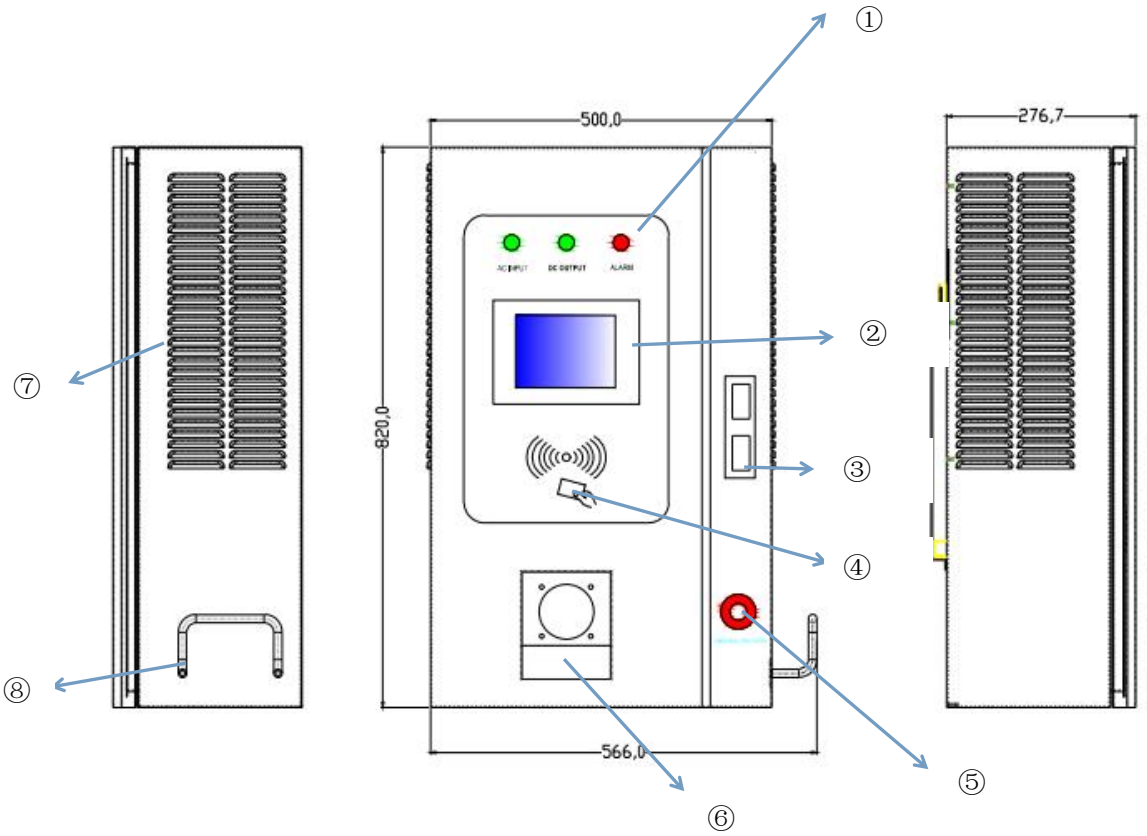
3. STORAGE

When the charger is stored prior to being installed and powered up, it must be stored indoors-in a clean and dry environment where the temperatures will remain within the range of 40 °C to 55 °C. The charger should be stored upright in the shipping wooden&carton that it was shipped in. This will help protect the charger from dust and abrasion. It should be stored in an area where it is not likely to be damaged. Do not stack anything on top of the charger.

4. GENERAL SPECIFICATIONS

Item		Specifications	Remark
TYPE	Cooling system	Forced air cooling	
	Insulating system	High frequency transformer insulation	
	Output Grounding system	400VDC ungrounded	
AC Input	Rated voltage	380~480VAC	
	Voltage fluctuation range	380V-10% / 480V+5%	
	Number of phases	Three-phase and four-line +PE	
	Rated frequency	50 or 60 Hz	
	Frequency fluctuation range	+/- 5%	
	Input power factor	0.95 or more	In rated operation
	Input power	22kw or less	In rated operation
	Grounding detection	30mA	
	Harmonic current	Total 5% or less	
DC Output	Rated Output Capacity	20kw	
	Maximum voltage	500VDC	
	Voltage variable range	50 to 500VDC	
	Output current	40ADC	
	Current variable range	0 to 40A	
	Ripple current	6.0Ap-p or less	
Structure	Degree of Protection IP	IP54	
	Ambient temperature	-20 ℃ ~ 50℃	
	Storage temperature	-30℃ ~ 50 ℃	
	Cubicle dimensions LxWxH	480*640*940mm	Cabinet packing dimension
	Weight in kg	100KG	Include module & connector
OTHERS	Certification	CE/IEC 61851	
	Safety	Emergency stop	
	Vehicle connector	125A	
	Battery communication protocol	CAN / PLC	
	Management system	TCP/IP	
	Inside system	CAN / PLC	
	User Identification	RFID	

5. MECHANICAL CHARACTERISTICS



Number	Parts Name
①	Charger status LED AC power ON-GREEN DC OUTPUT ON-GREEN Fault- Red
②	LCD Touch screen(7inch): Operating states such as remaining charging time and failure information, if a failure occurred, can be displayed.
③	Door lock key hole(Rear side)
④	RFID reader
⑤	Emergency Stop Button: Use this emergency circuit-breaker in order to stop the quick charger in case of emergency

⑥	Plug storage box
⑦	Air hole
⑧	Cable hangling

6.INSTALLATION

6-1.Location

① For the best operating conditions and longest life, take care in selecting an installation site.

Operating life and performance will be influenced by charger location.

② Select a dry and well-ventilated location.

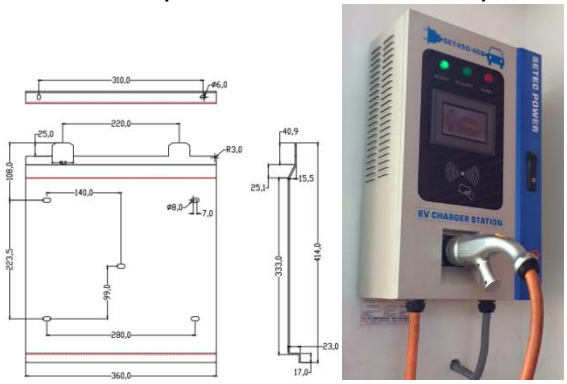
③ Chargers should not be exposed to rain, high temperatures, dust,corrosive fumes, combustible materials, or explosive gases.

④The front of the charger must remain unobstructed for serviceability.

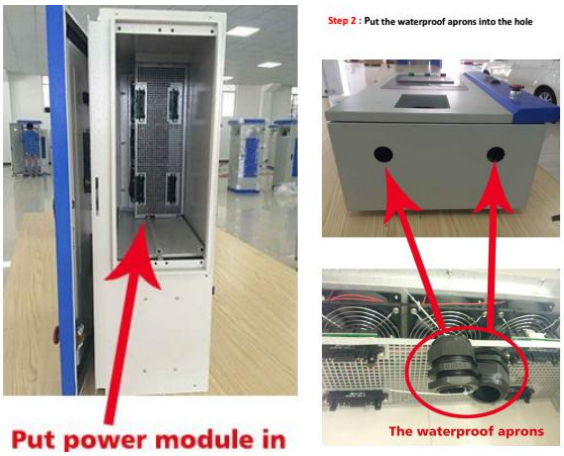
6-2. Installation Procedure

The 20KW mounted charger can be fixed on the wall.

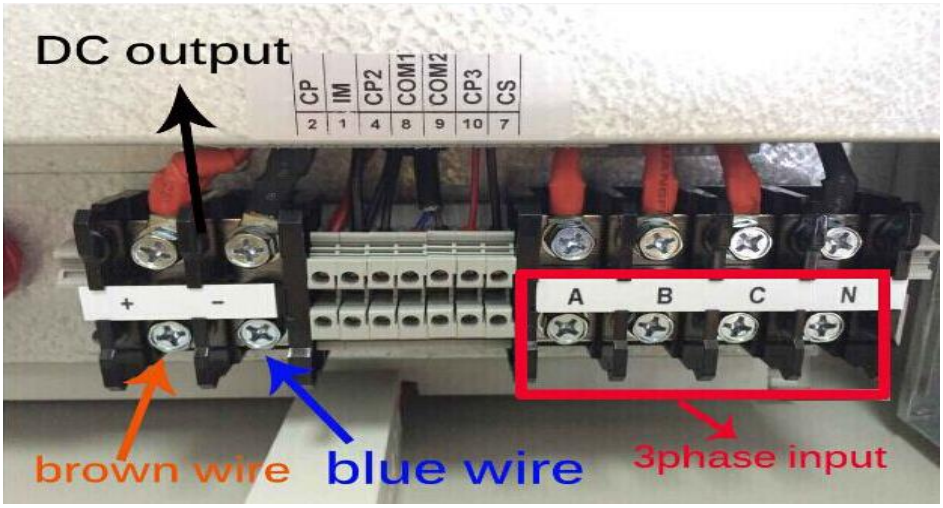
①Fixed one part on the wall, other part on the charger.



② Insert the Modules.



③ Wiring Instructions.



AC input:

Number	Terminal Assignment
A	Phase 1 (item L1)
B	Phase 2 (item L2)
C	Phase 3 (item L3)
N	Neutral(item N)

DC output:

Pin No.	Line number	CHAdeMO definition	function descriptor
1	1	IM	Grounding wire
2	2	CP	Chargr sequence signal 1
3		NC	NC
4	6	CP2	Vehicle charge permission
5	Blue	DC-	DC output -cathode
6	Brown	DC+	DC output -anode
7	7	CS	Connector proximity detection
8	8	COM1	CAN-H
9	9	COM2	CAN-L
10	3	CP3	Chargr sequence signal 2
	4	EL-	Electromagnet&LED - cathode
	5	EL+	Electromagnet&LED - anode

Line number 4 and line number 1 should be connected together,it means EL- connect IM

Line number 5 and line number 2 should be connected together,it means EL+ connect CP

Note:
The AC feed power cables to the charger are not included.

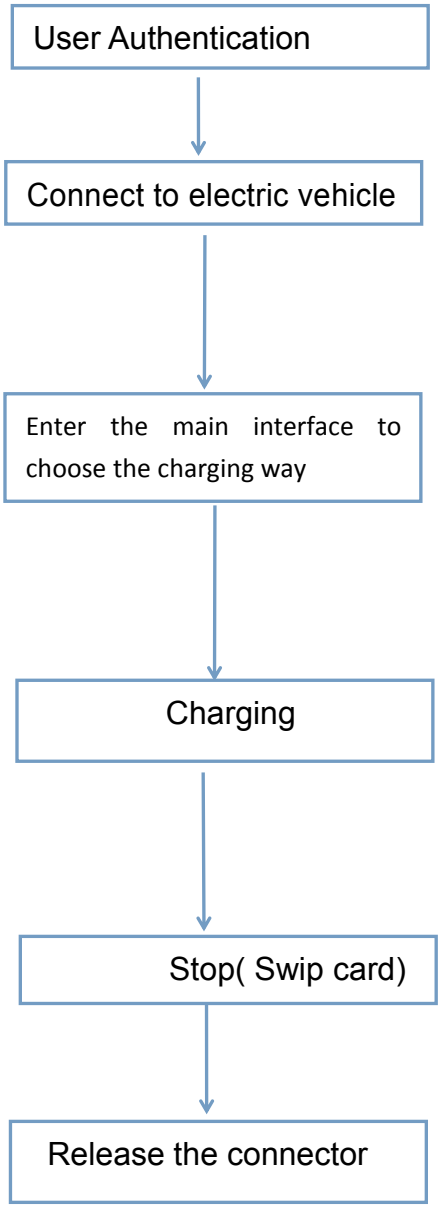
7. Charging operation

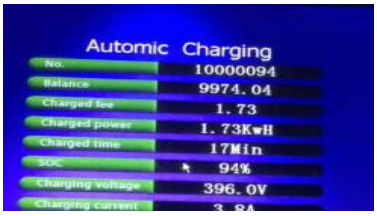
⚠ TO PREVENT ELECTRICAL SHOCK, DO NOT TOUCH UNINSULATED PARTS OF THE CHARGER DC OUTPUTCONNECTOR,BATTERY CONNECTOR, OR BATTERY TERMINALS.MAKE SURE ALL ELECTRICAL CONNECTORS ARE IN GOOD WORKING CONDITION. DO NOT USE CONNECTORS THAT ARE CRACKED, CORRODED, OR DO NOT MAKE ADEQUATE ELECTRICALCONTACT. USE OF A DAMAGED OR DEFECTIVE CONNECTOR MAY RESULT IN A RISKOF OVERHEATING OR ELECTRIC SHOCK.

7.1 Charge before Checklist

Make sure the charger has been installed according to the directions in this manual. Failure to do so could result in personal injury and damage to the equipment.

7.2 Performance of a charging sequence

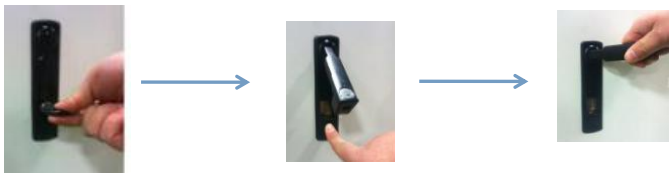




7.3 Process for Test Run

① Front door open

-Press button under handle and turn handle clockwise in the following order, then Front door will open.



② Switch ON maincircuit breaker

-Check whether the status LED for AC power is ON.

-Check module status.

-Check screenfor card authentication.

Main AC breaker

③ Closing door

If the above process is completed, make sure to close door before charging for safety.

7.4 Start charging

Step 1

User authentication

- Put your card close to the card-reader for user authentication.

Step 2 Detach charging connector & Plug connector into electric car

-Plug connector into the charging hole of electric car.

Step 3 Enter the main charging interface. 4 charging ways

1、Automatic charging
2、Charging by fee (Payment)
3、Charging by power (KW.H)
4、Charging by time

Step 4 Press Automatic charging. Click OK.

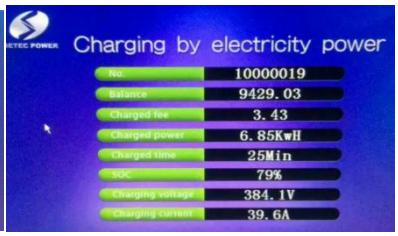
Noted: When we press OK, the charger will start to communicate with Car/connector. And the charger will automatically check the below:

1. Checking the connection
2. Starting communication with car
3. Checking if connector LED ON

If there is no problem with self-checking, charger starts charging.

-Output status LED changes into Green color.

-Time, voltage, SOC and current are shown on screen.



Step 5 Charging completed.

Noted: if you want to stop in charging status, pls swip card to stop it.

Step 6 Swip card, and Detaching connector and put into the device.

Noted: Charging by Kw.h and charging time is the same operation as automatic charging.
And we need to set certain value when charging by KW.h/time/payment.

If we set 30 minutes, the charger will start 30 minutes, and then stop.

Step 7 How to set the rate period

We can set the rating for the different period according to the peak and low grid power.

7.4 Emergency Stop

- In case an emergency happens while charging,press “EMERGENCY STOP” button in front side to immediately stop charger from charging.

--When “EMERGENCY STOP” button is pressed, red LED will be ON. And the sreen will jump the Alarm. And swipe card to revoce the normal status.