

Autel Site Acceptance Test (Cx)

Charger Serial Number		Cx Date	
Charger Model		Cx Company	
Site Owner		Cx By	
Site Address		# Charging Modules	
Charge Ports (CCS/CHADEMO)		Rated Power	

Description

The Site Acceptance Test (SAT) is to determine if the system is installed to specs. Although the system had been tested in the factory, it could fail due to potential damage during transportation or installation. The instructions provided are only for MaxiCharger DC Fast.

This procedure mainly consists of 4 parts:

- Mechanical and electrical inspection;
- Set the address for every charging module;
- Parameter setting for DC chargers;
- Connector A&B power-sharing test.

Risks and safety procedure

1. The installation and commissioning process may not address all the hazardous conditions or unsafe acts that may exist. Always confirm compliance with the latest standards and best practices. Local, State, and Federal regulations take precedence over this material.
2. The photos in this instruction are just for reference, there may be some slight changes.
3. This version of the SAT allows a commissioning engineer to perform the SAT procedure without direct remote support.

Preparation

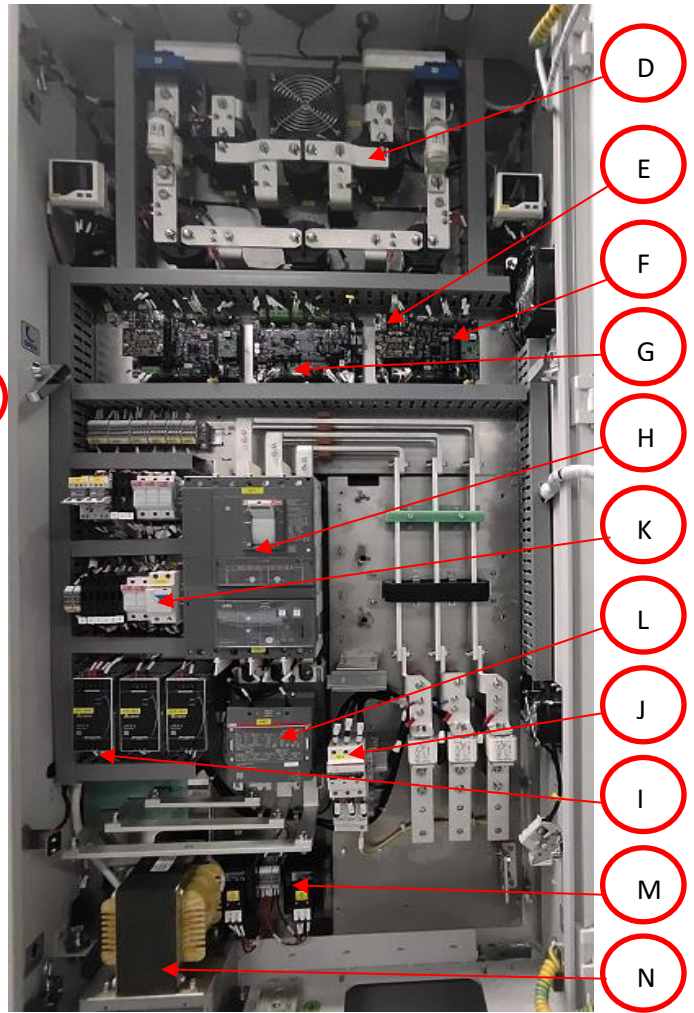
1. Confirm there is power on site.
2. Prepare the multi-meter.
3. Prepare tools for the charger (such as allen key, open end wrench, flat-head cross screwdriver etc.)
4. Prepare SAT document.
5. Contact the customer to confirm the site is ready for commissioning.
6. A qualified electrician should be on site to provide support during this process.

Right door view (Reference photo)



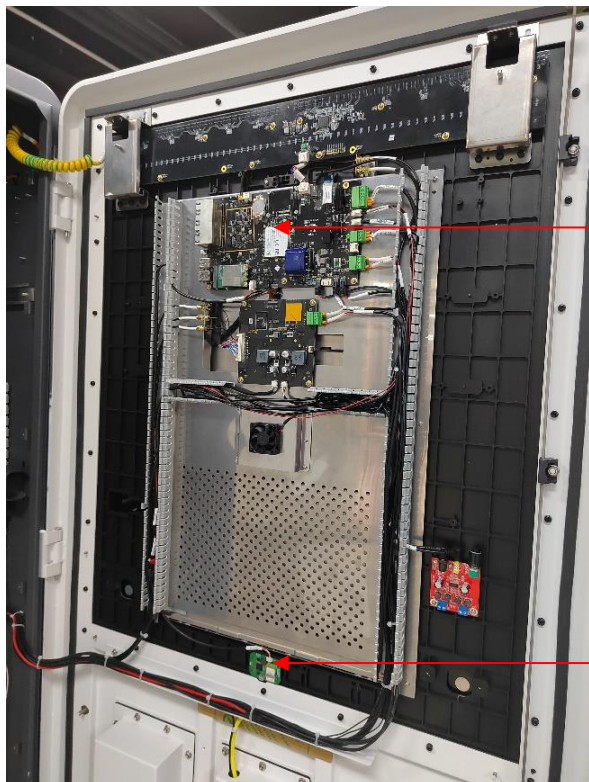
A

Front door view (Reference photo)



D
E
F
G
H
K
L
J
I
M
N



Back of front door view (Reference photo)



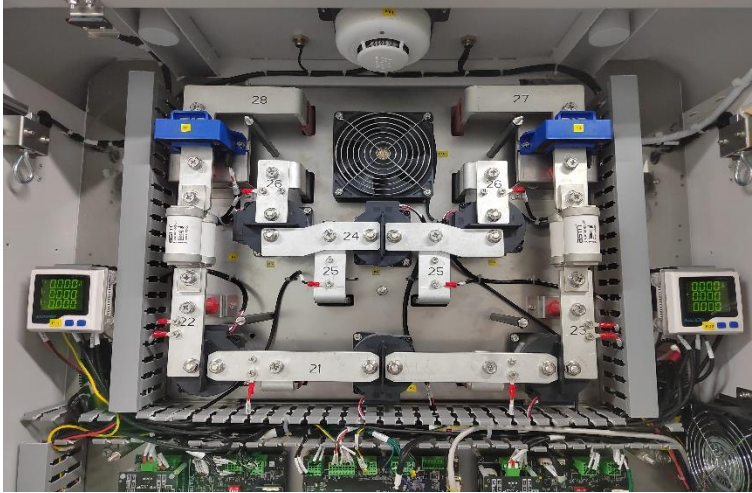
B

C

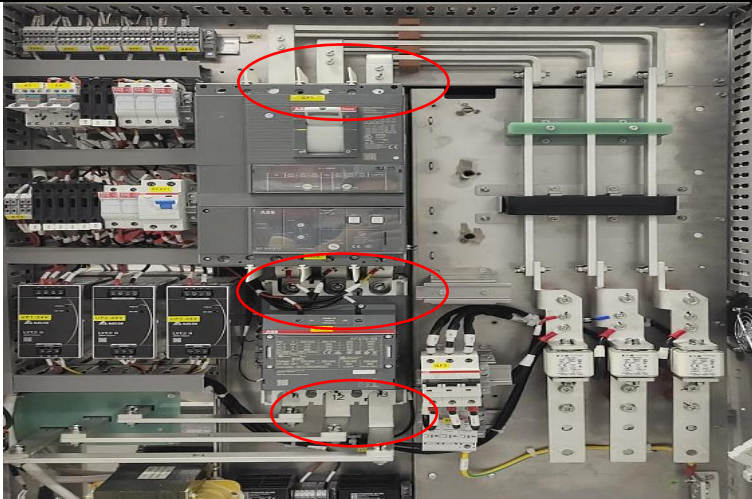
#	Verify all the parts are in their corresponding location.	<input checked="" type="checkbox"/>
A	Charging Modules	
B	TCU	
C	NFC	
D	Direct-Current Output	
E	Insulation Detection Board	
F	CCU	
G	ECU	
H	QF1 (Main Breaker)	
I	Power Supply	
J	QF2 (MCB) for SPD	
K	RCCB	
L	Contactor	
M	Heater	
N	Transformer	

Mechanical and electrical inspection (Ensure the upstream breaker stays in the OFF position during this part of the procedure)	
Ensure the bolts are tightened to torque specs. 140 N·m (1239 lb-in)	Check List Status: Pass/Updated
	
Ensure the cabinet is clean inside, with no copper wire or foreign debris, to prevent the electronic components from potential damage.	
The front door of the charger opens and closes freely.	
The right door of the charger opens and closes freely.	
The left door of the charger opens and closes freely.	
Pull the charging cable with some force to ensure the cable is secured in place. (Notate cable type)	
	

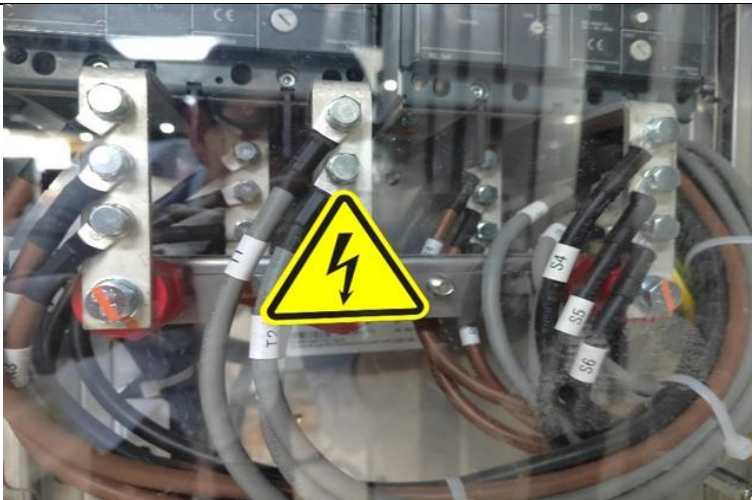
Check the torque on the charging cable terminations.
20.5 ± 2.5 N·m (181.44 ± 22.13 lb-in)



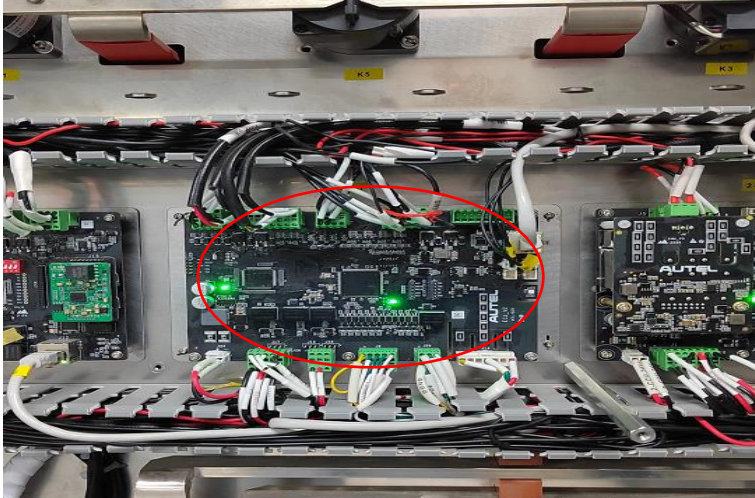
Check the screws and bolts with manufacturer mark.



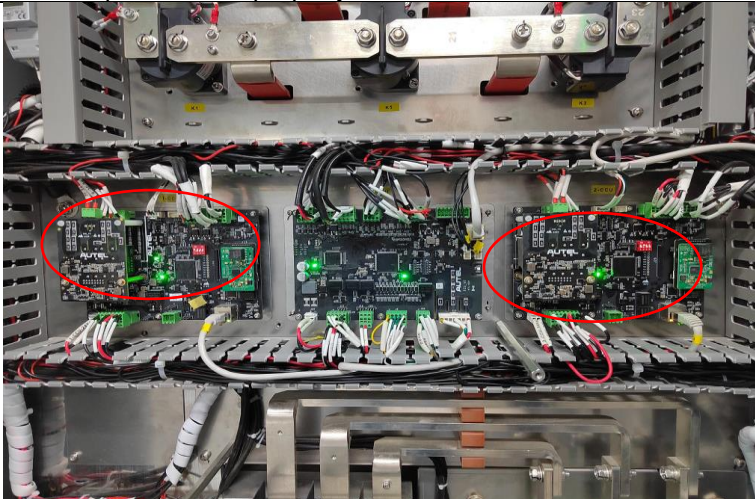
Verify the warning mark and the protector is in place.



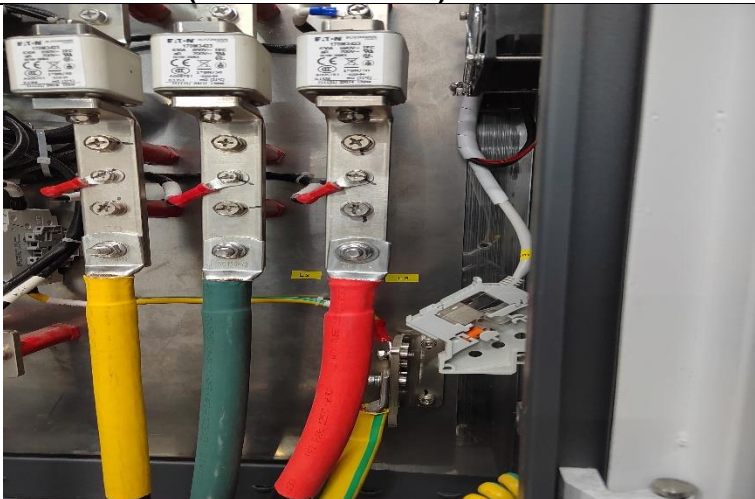
ECU:Ensure all cables/wires are in place by gently pulling on them



CCU1(Left) and CCU2(Right)
Ensure all cables/wires are in place by gently pulling on them.
Perform an inspection to ensure the connections are undamaged
and components are properly mounted.



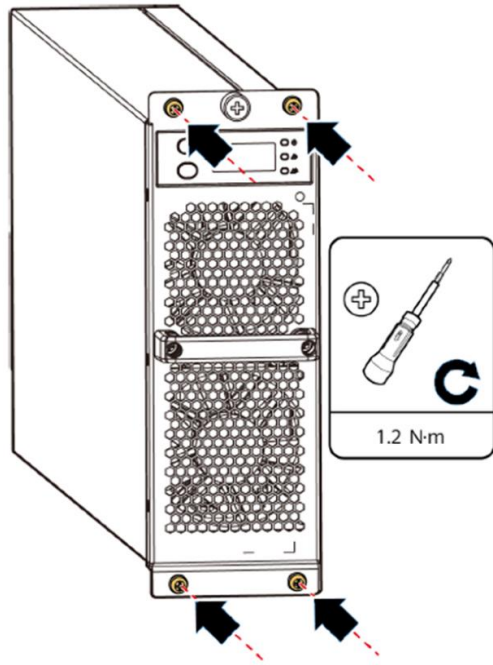
Ensure all AC input terminations are torqued.
20.5 ± 2.5 N·m (181.44 ± 22.13 lb·in)



Ensure all filters are secured in place on the doors.



Ensure all charging modules installed have screws in place and torqued.

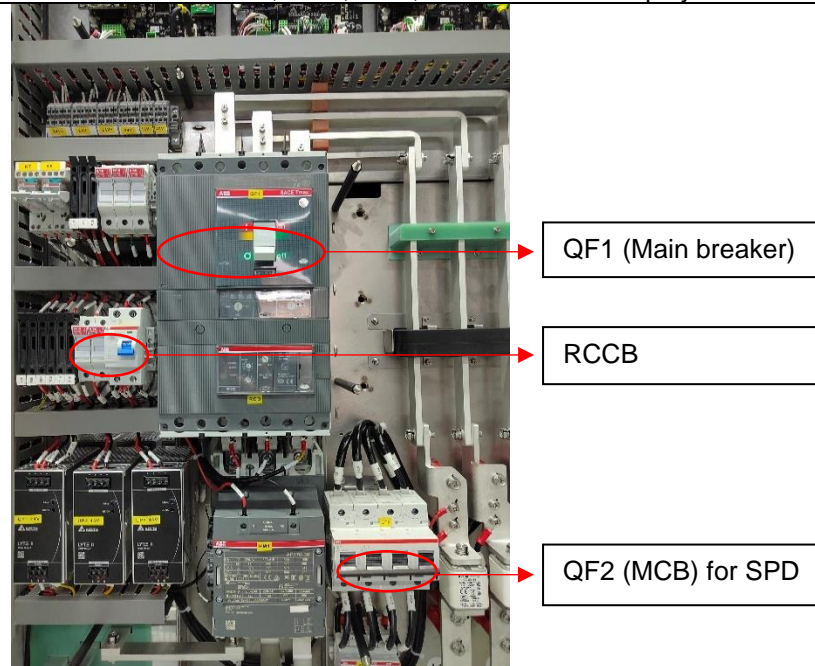


Grid voltages

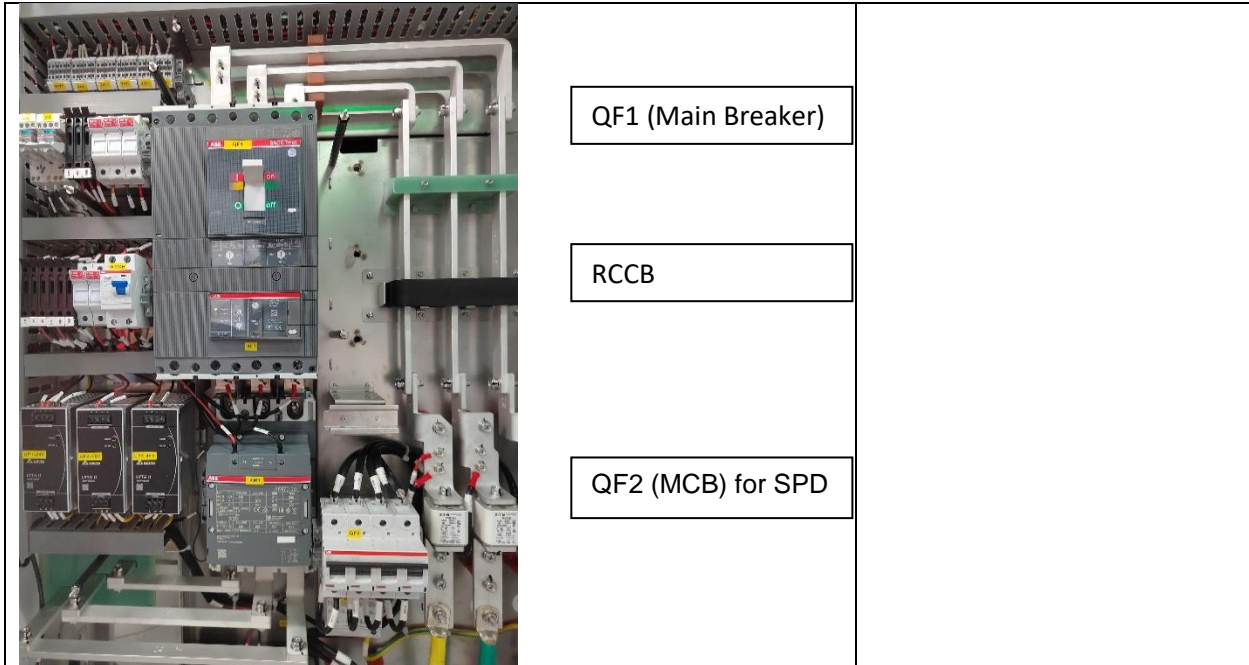
Verify the voltages L1/L2/L3-PE, N-PE and between the phases. (7 measurements) (Permissible error: +/-10%)

L1 – PE=	Vac	
L2 – PE=	Vac	
L3 – PE=	Vac	
N – PE=	Vac	
L1 – L2=	Vac	
L1 – L3=	Vac	
L2 – L3=	Vac	




After verifying the voltages are within the permissible range, set the RCCB to the “ON” position and check the LED indicators on the CCU, ECU, TCU, and the screen display.






Set the main breaker to “ON” position and connect to the main circuit. Close the doors of the cabinet. Your MaxiCharger is ready for use.

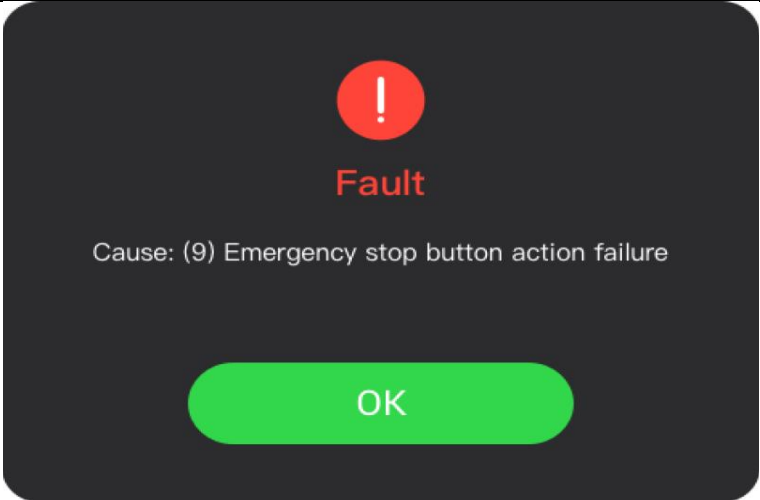


Set the address for every charging module of the charger by step shown below.

Procedure	Instruction	Nixie tube display
0	Initial status of the module after powered on	Voltage: 0V 
1	Press the down button twice to switch to the hardware address display interface	Adr static status display 
2	Press the down button for 3 seconds to switch to the hardware address display interface	The hardware address is statically displayed in decimal notation. The address is shown "6" in the interface below 

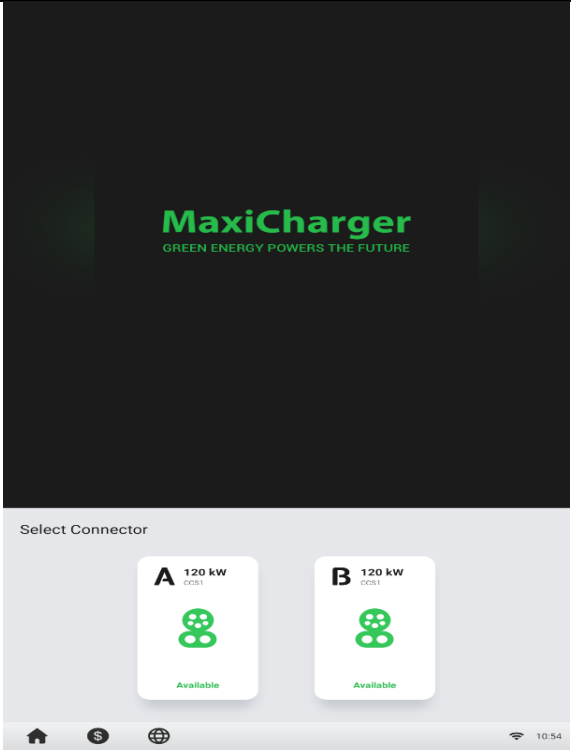
3	Press the down button for 3 seconds to switch to the hardware address setting interface	One of the high, middle, and low digits blinks in decimal notation, the lowest digital "6" blinks as shown below. 
4	Press the up button to switch the high, middle or low position, Press the down button to adjust the value.	The address after adjustment, one of the high, middle, and low digital flashes, the address is set to 8 as shown below. (Take the charger with power more than 160kW for example.) 
5	Press the down button for 3 seconds to save the Settings. The operation is completed.	The address is static displayed; Then return to the voltage display interface. The voltage is 0V as shown below. 

Charger operation inspection (Ensure the breakers are in the ON position during this part of the procedure)	
Close the charger doors and press the Emergency stop button to check the button function, the screen should show a fault. "Cause: (9) Emergency stop button action failure"	

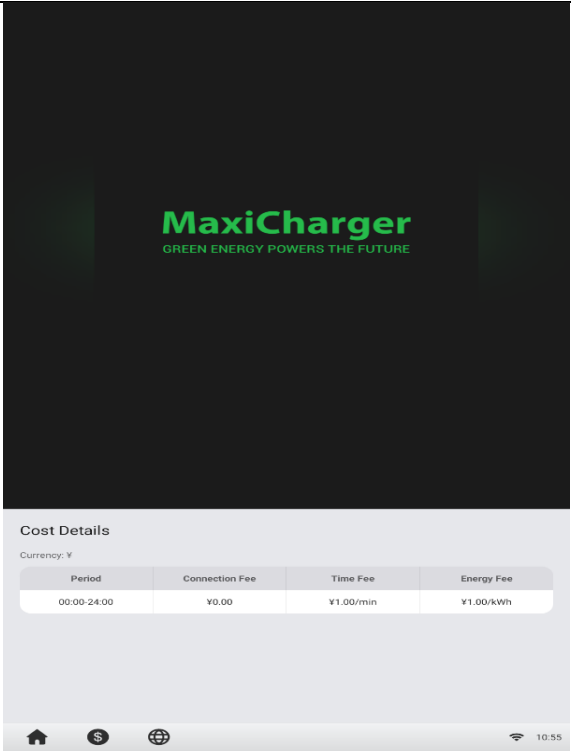


Check the parameter setting for DC charger

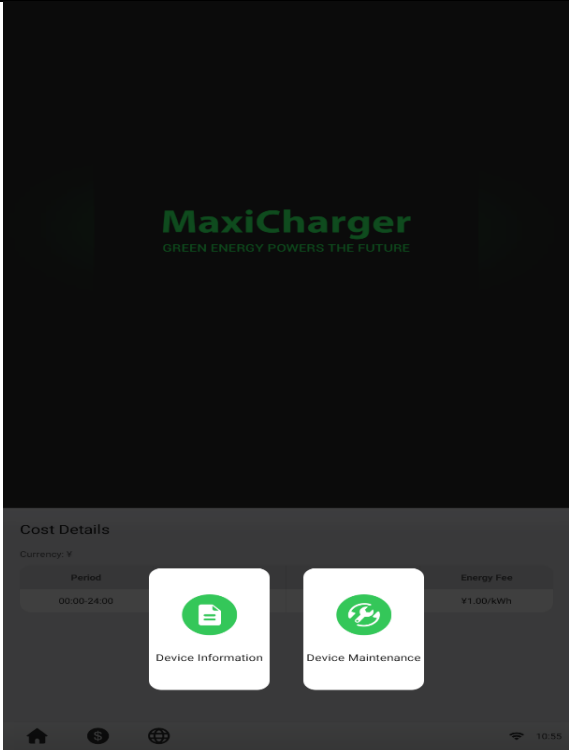
Step 1: Click the price “\$” in the lower left corner of the screen.



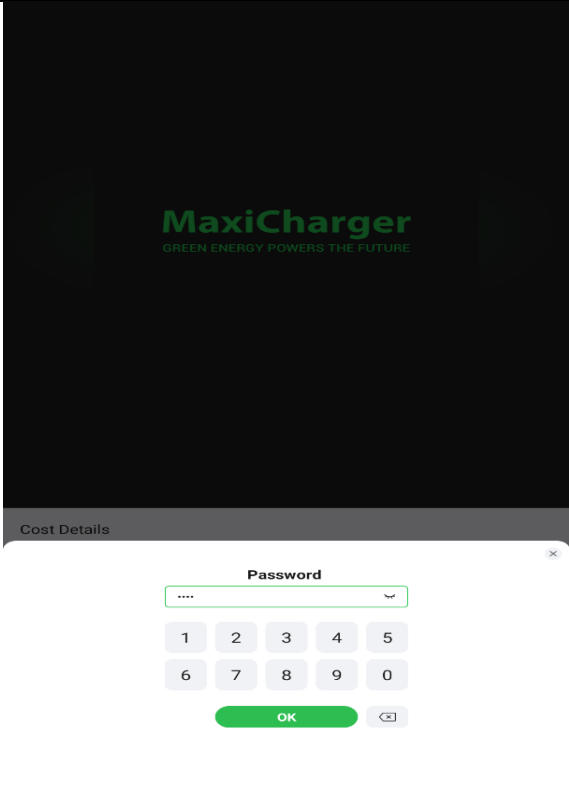
Step 2: Click in the upper left corner of the screen.



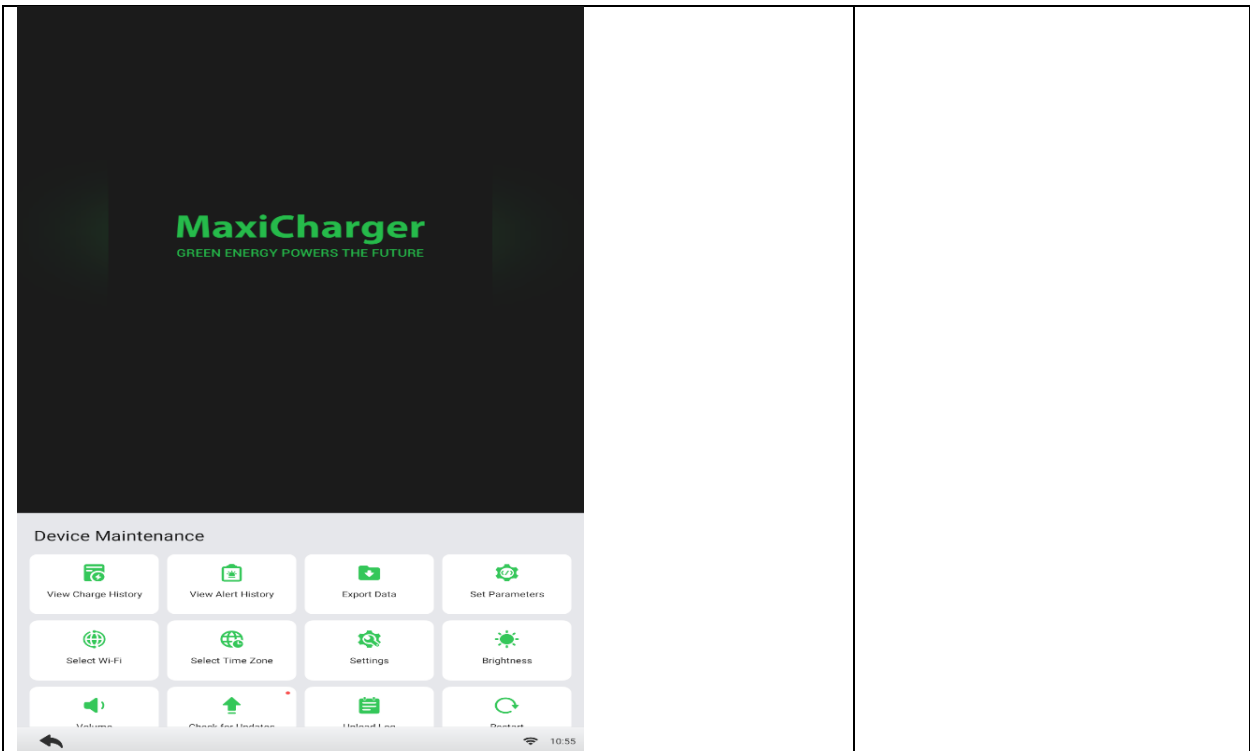
Step3: Click "Device Maintenance".



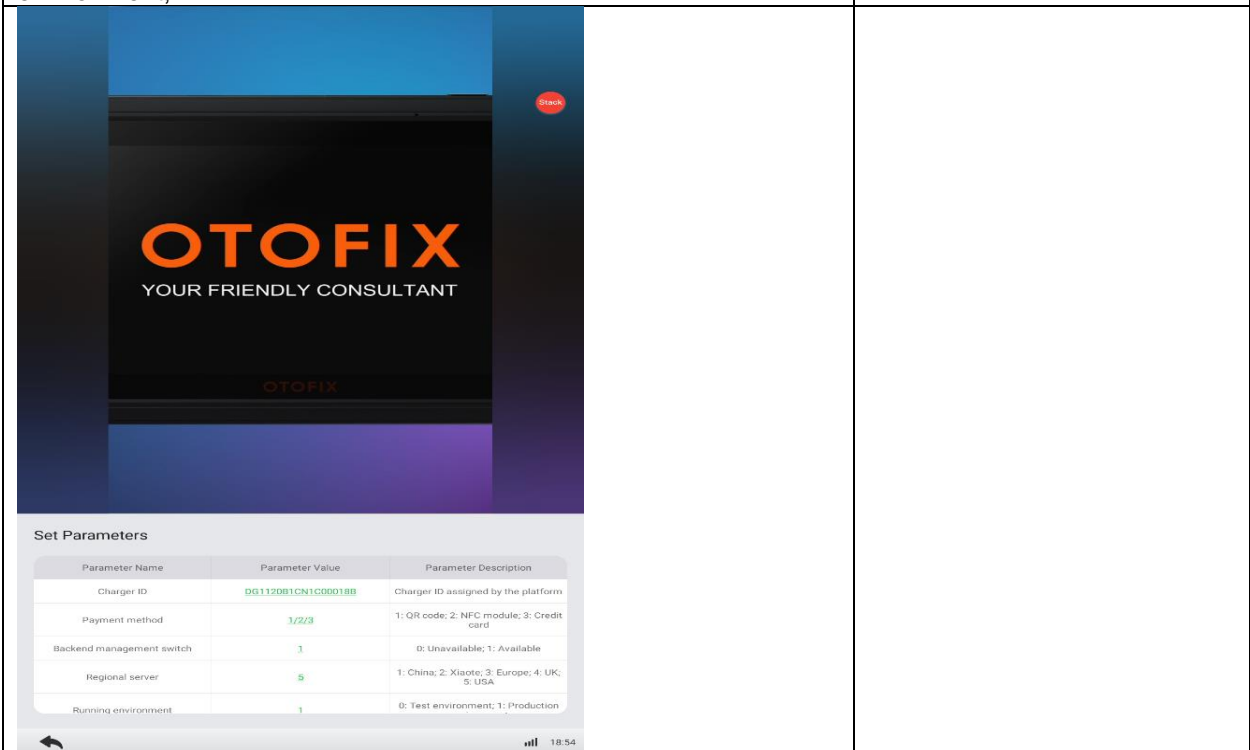
Step 4: Enter the password "1234", click "OK".



Step 5: Click "Set parameters".

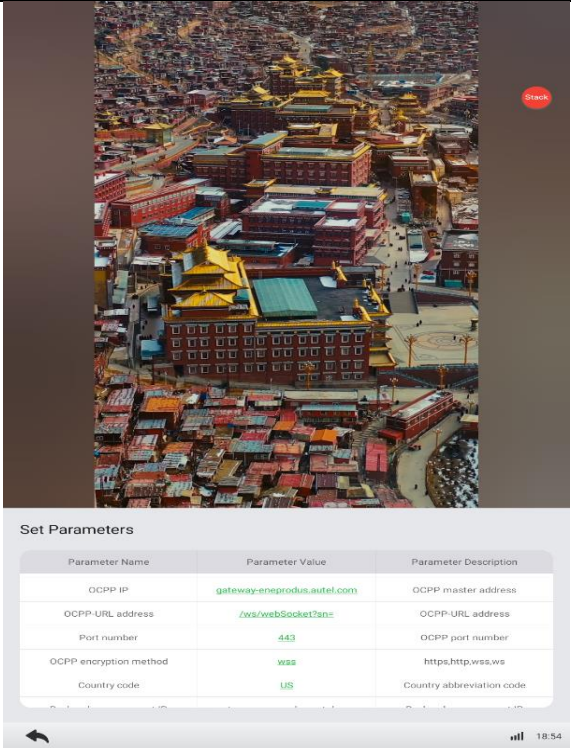


Backend management switch "1" 0: Unavailable; 1: Available
 Regional server "5" 1:China; 2: Xiaote; 3: Eurppe; 4: UK; 5: USA
 Running environment "1" 0: Test environment; 1: Product environment;



OCPP IP "gateway-eneprodus.autel.com"

OCPP-URL address "/ws/webSocket?sn="; Set Port number "443"
 OCPP encryption method "wss"; Set Country code "US"



Backend management IP "gateway-eneprodus.autel.com"
 Authenticated stop "1" 0: Stop immediately; 1: Authentication required to stop
 Connector configuration "0" 0: connectors 1 and 2 initialization; 1: Single-connector initialization; 2: Connector 3 and 4 initialization;





Ensure the settings are correct. Capture a photo.

Verify the charger is communicating with the OCPP server.	
Test and verify different authorization methods available on this charger.	
Test charge sessions.	
A session will properly stop by pressing the stop button.	

Note:

Contact Autel Tech Support to set up Cloud platform access and register the charger to Autel Cloud as needed.

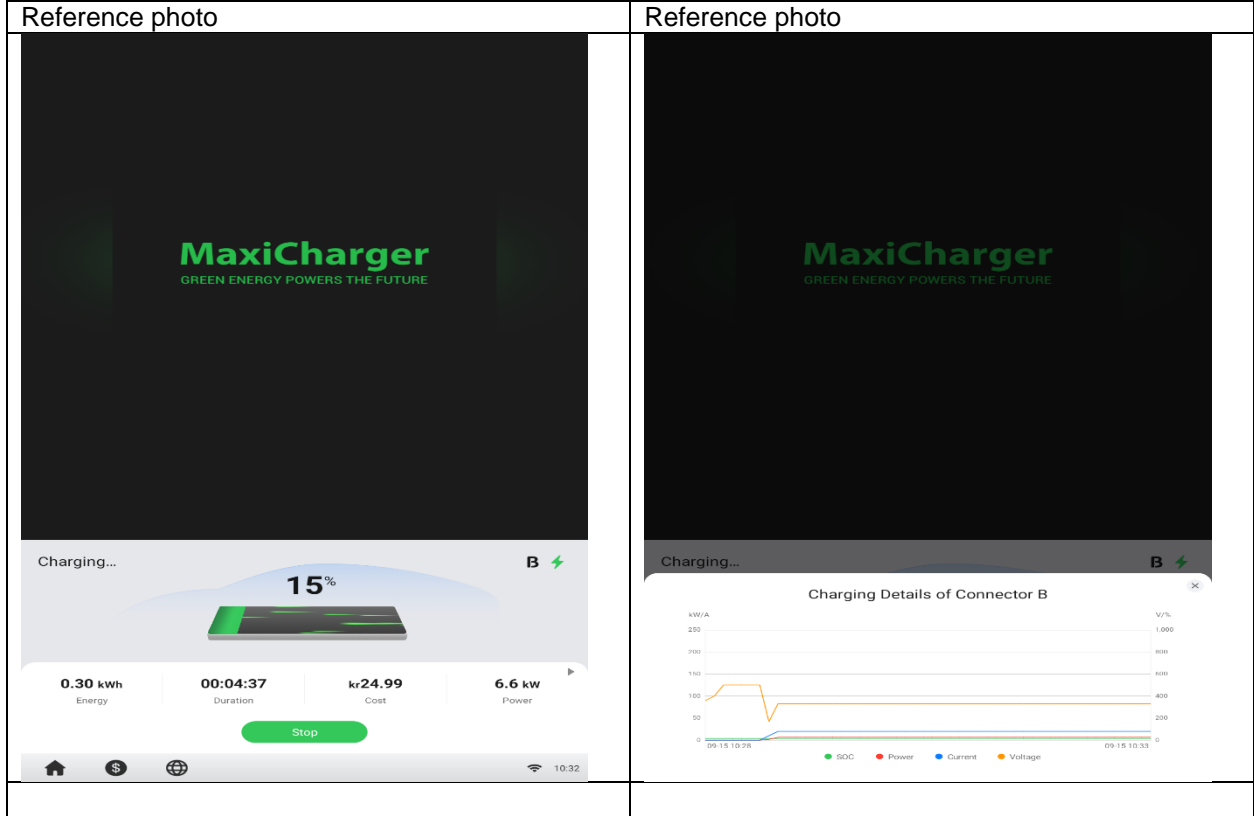
Nayax System and Autel Charge APP Test (Option)	
Nayax system setting and test	
Nayax system setting successfully	Credit card can be used for DC Charging
	

Autel Charge APP Test

No.	Operation	Procedure	Status
1.	Download	Autel Charge APP can be downloaded from the Apple APP Store for iOS system and Google Play Store for Android system.	Pass/Fail
2.	Register	Autel Charge APP Registration process	Pass/Fail
3.	Log in	Log in to Autel Charge App successfully	Pass/Fail
4.	Registration of payment cards	Registration of Credit/Debit card in Payment Manager	Pass/Fail
5.	Charging operation	Remote Start operation from Autel Charge APP	Pass/Fail
6.	Remote stop	Remote Stop operation from Autel Charge APP	Pass/Fail
7.	Invoice issue	Log in to Autel Charge App -"Me"- "Charge History"- Click on the invoice icon in the top right corner of the screen.	Pass/Fail

Connector A&B Power-sharing Test				
No	Operation	Procedure	EV No.1	EV No.2
1.	Charge 2 EVs using connector A and B at the same time for 5 minutes.	Open the charging port, and insert the connector A to EV No.1 and connector B to EV No.2. Start charging and observe the charging process. Charging points should share power 60kW/60kW +/- 10%. Repeat procedure with EV No.1 in connector B and EV No.2 in connector A.	Connector A test : Pass/Fail Connector B test : Pass/Fail	Connector A test : Pass/Fail Connector B test : Pass/Fail
2.	Charging operation on connector B when connector A is in use.	Open the charging port, insert the connector A to EV No.1, Start charging, and observe the charging process. After 3 minutes, repeat operation on connector B using EV No.2. EV No.1 should keep charging with the same power, and EV No.2 should start charging normally. Repeat process with all possible scenarios.	EV1- ConnectorA→ EV2-ConnectorB: Pass/Fail EV1- ConnectorB→ EV2-ConnectorA: Pass/Fail	EV1- ConnectorA→ EV2-ConnectorB: Pass/Fail EV1- ConnectorB→ EV2-ConnectorA: Pass/Fail
3.	Charging stability test when 1 of 2 connectors finished charging session.	Open the charging port and insert the connector A to EV No.1 and connector B to EV No2. Start charging and observe the charging process. After 3 minutes, stop the charging procedure on one side. Another car should stay in the charging process with the same power.	EV1- ConnectorA→ EV2-ConnectorB: Pass/Fail EV1- ConnectorB→ EV2-ConnectorA: Pass/Fail	EV1- ConnectorA→ EV2-ConnectorB: Pass/Fail EV1- ConnectorB→ EV2-ConnectorA: Pass/Fail

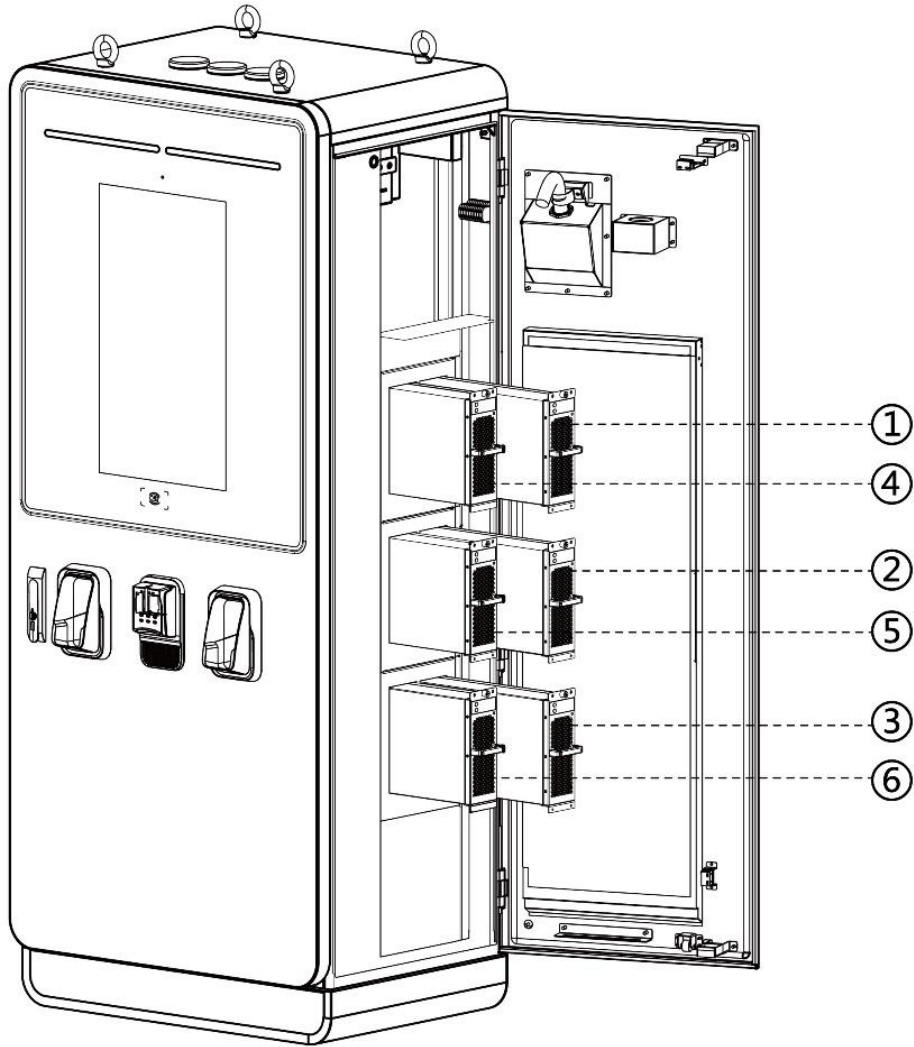
Charging SOC and Curves



Customer Signature		Date
Cx Agent Signature		Date

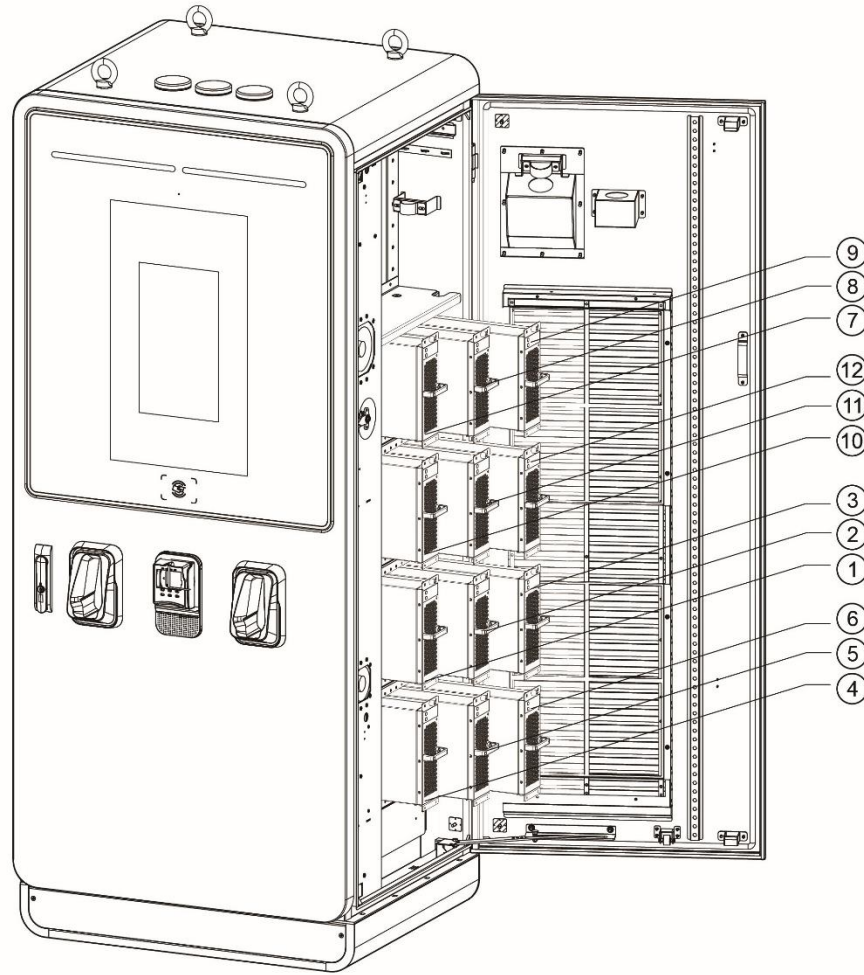
Appendix A

60kW-120kW MaxiCharger DC Fast



Model	Rated Power	Number of Modules	Location
Maxi US DC A60	60 kW	3 PCS	1, 2, 4
Maxi US DC A80	80 kW	4 PCS	1, 2, 4, 5
Maxi US DC A100	100 kW	5 PCS	1, 2, 3, 4, 5
Maxi US DC A120	120 kW	6 PCS	1, 2, 3, 4, 5, 6

140kW-240kW MaxiCharger DC Fast



Model [Ⓟ]	Rated Power [Ⓟ]	Number of Modules [Ⓟ]	Location [Ⓟ]
Maxi US DC A140 [Ⓟ] (UF140A4001/UF140A3001) [Ⓟ]	140 kW [Ⓟ]	7 PCS [Ⓟ]	1, 2, 3, 4, 7, 8, 9 [Ⓟ]
Maxi US DC A160 [Ⓟ] (UF160A4001/UF160A3001) [Ⓟ]	160 kW [Ⓟ]	8 PCS [Ⓟ]	1, 2, 3, 4, 7, 8, 9, 10 [Ⓟ]
Maxi US DC A180 [Ⓟ] (UF180A4001/UF180A3001) [Ⓟ]	180 kW [Ⓟ]	9 PCS [Ⓟ]	1, 2, 3, 4, 5, 7, 8, 9, 10 [Ⓟ]
Maxi US DC A200 [Ⓟ] (UF200A4001/UF200A3001) [Ⓟ]	200 kW [Ⓟ]	10 PCS [Ⓟ]	1, 2, 3, 4, 5, 7, 8, 9, 10, 11 [Ⓟ]
Maxi US DC A220 [Ⓟ] (UF220A4001/UF220A3001) [Ⓟ]	220 kW [Ⓟ]	11 PCS [Ⓟ]	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 [Ⓟ]
Maxi US DC A240 [Ⓟ] (UF240A4001/UF240A3001) [Ⓟ]	240 kW [Ⓟ]	12 PCS [Ⓟ]	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 [Ⓟ]