Application Note -
Upgrade SigenStor EVDC from 12.5kW to 25kW

1. Introduction

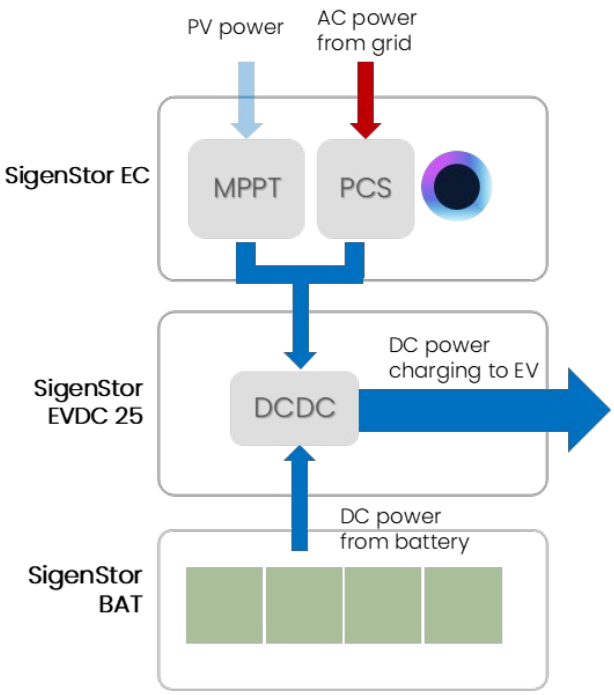
To better meet the increased charging power demands of electric vehicles, Sigenergy offers customers the option to upgrade their SigenStor EVDC (EVDC for short) power capacity. This means you can purchase an additional license to upgrade your EVDC from 12.5kW to 25kW.

This document aims to explain the factors that affect the EVDC charging power and how to upgrade EVDC from 12.5kW to 25kW by license. Please make sure you fully understand your system's capabilities before using 25 kW charging.

2. Technical Description

It is worth noting that Sigenergy supports upgrading your EVDC to 25 kW by license activation. But this does not mean that your EVDC will always charge at 25 kW. The actual charging power depends on the available energy in your system, including:

- PV power (Depends on the solar irradiance)
- Battery energy (More battery packs can output greater power)
- Grid power (The power from the grid is limited by the inverter's rated power)



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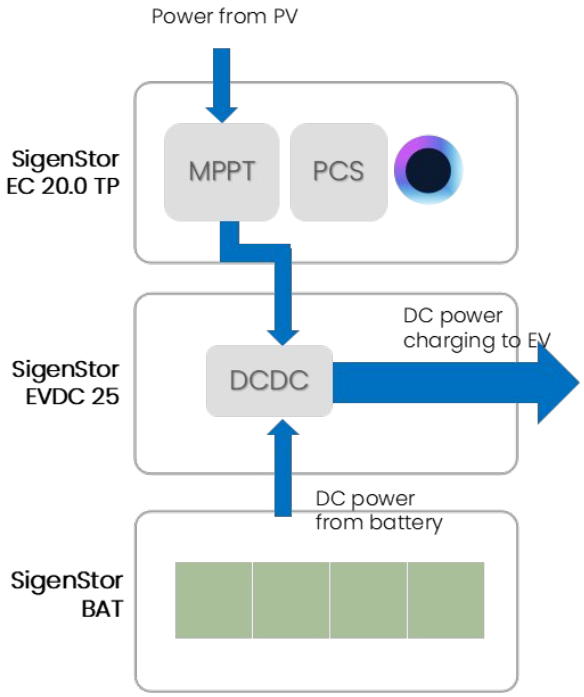
For example,

Case 1: PV Surplus Charging mode

If you select PV Surplus Charging mode, set the "Working Mode" of SigenStor EC to "Maximum Self-consumption". Assuming the rated power of SigenStor EC is 20 kW and SigenStor contains 2 battery packs, each with a rated discharging power of 4 kW/8kwh, while SigenStor EVDC has a rated charging power of 25 kW. "Battery Boost" is set to On, which allows the battery to discharge to the EV. If "Battery Boost" is set to Off, the battery power in the table will be zero. Power distribution for different scenarios is as follows:

PV Power	Battery power	Load power	Grid Import Power	EVDC power
0kW	8kW(discharge)	6kW	0kW	2kW
6kW	8kW(discharge)	6kW	0kW	8kW
20kW	8kW(discharge)	6kW	0kW	22kW
25kW	6kW(discharge)	6kW	0kW	25kW
30kW	1kW(discharge)	6kW	0kW	25kW

In this scenario, the EVDC charging power comes from PV and batteries. Therefore, the EVDC charging power depends on the total power of the PV and batteries.



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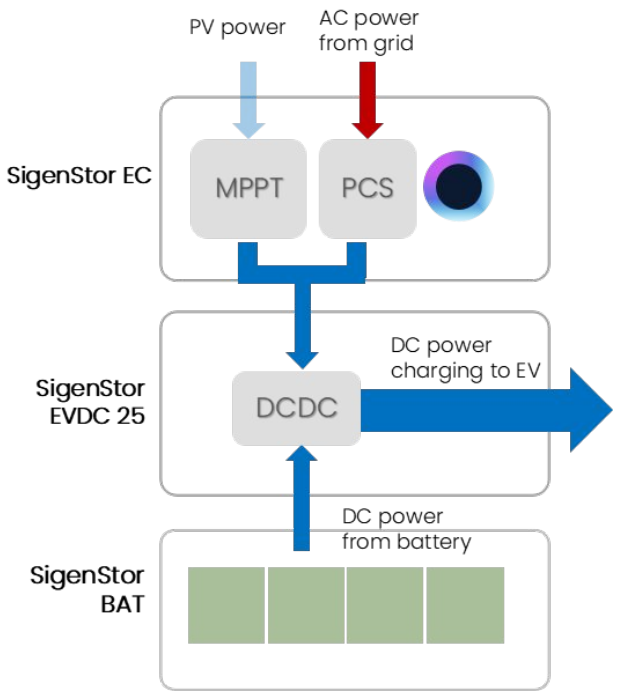
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Case 2 : Fast Charging mode

If you select Fast Charging mode. Set the "Working Mode" of SigenStor EC to "Maximum Self-consumption". Assuming the rated power of SigenStor EC is 20 kW and SigenStor contains 2 battery packs, each with a rated discharging power of 4kW/8kWh, while SigenStor EVDC has a rated charging power of 25 kW. "Battery Boost" is set to On(On means allowing battery discharge to EV. If Battery boost is set to off, the Battery power in the table will be zero). Power distribution for different scenarios is as follows:

PV Power	Battery power	Load power	Grid Import Power	EVDC power
0kW	8kW(discharge)	6kW	20kW	22kW
6kW	8kW(discharge)	6kW	17kW	25kW
20kW	8kW(discharge)	6kW	3kW	25kW
25kW	6kW(discharge)	6kW	0kW	25kW
30kW	1kW(discharge)	6kW	0kW	25kW

In this scenario, EVDC charging power depends on the total available power from PV, batteries, and the grid. Grid power is limited by the inverter's rated power. The higher the inverter's rated power, the more power it can supply from the grid to the EVDC, making it easier for the EVDC to reach 25 kW charging power.



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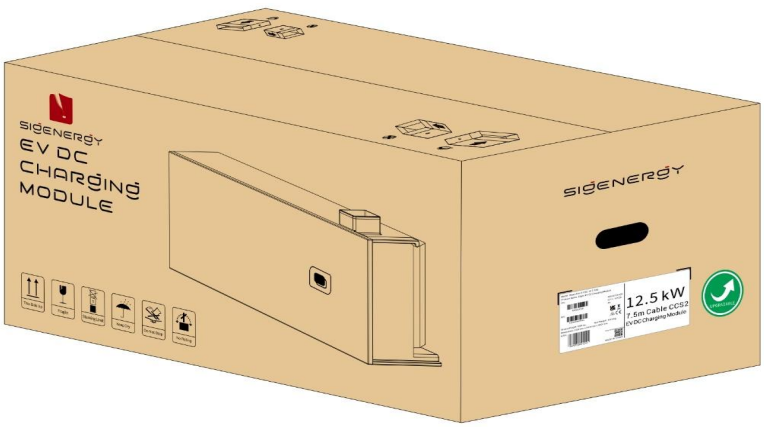
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To sum up, the license unlocks a higher power limit for your charger from 12.5kW to 25kW, but if your PV output, inverter power, or battery energy cannot support 25 kW at that moment, the real-time charging power will be lower than 25kW. This is normal system behavior and not a fault with your charger or license. Before upgrading to 25kW, please fully understand the capabilities of your system

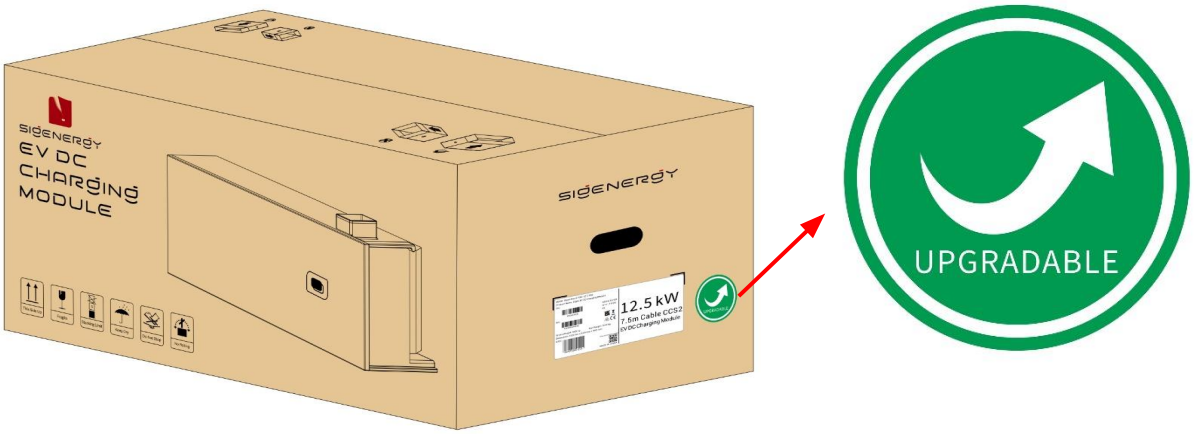
3. Upgradeable Version Identification

The Sigen EVDC Charging Module will now be exclusively available in two models: SigenStor EVDC 12 7.5S2 and SigenStor EVDC 12 10S2.
The packaging of SigenStor EVDC will be updated with an additional green label, to distinguish between the new upgradeable version and the old non-upgradeable version.

Before



After



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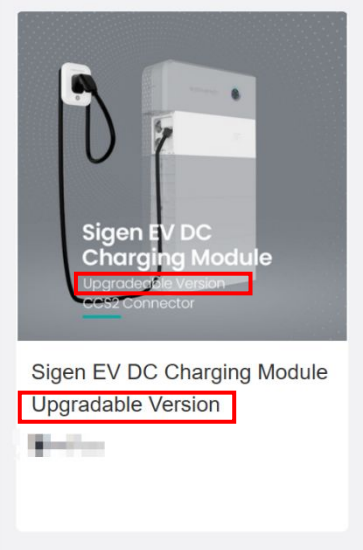
When placing an order on the Sigenergy e-Shop, the store will clearly indicate that it is the upgradable version.

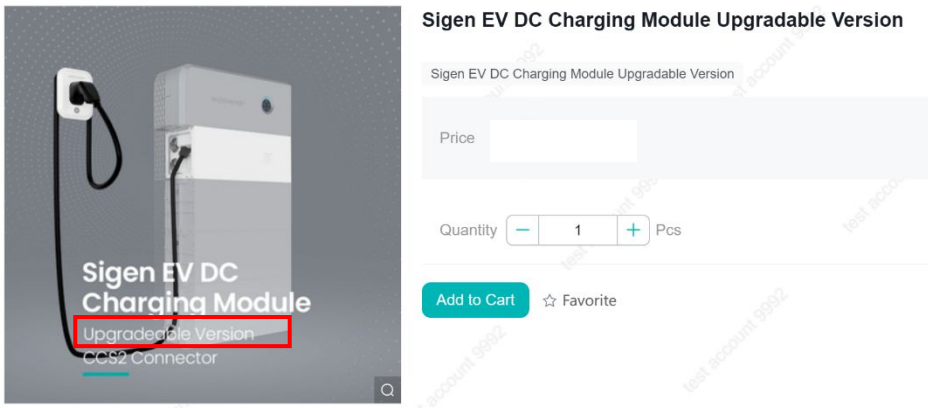
Before





After



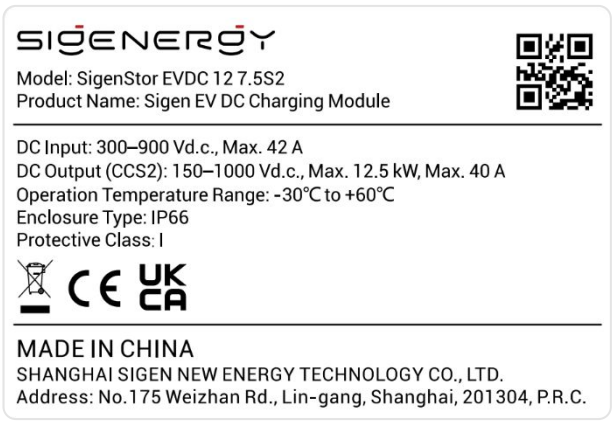


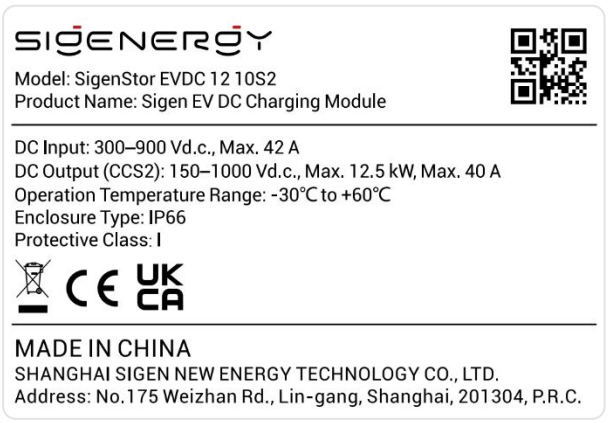
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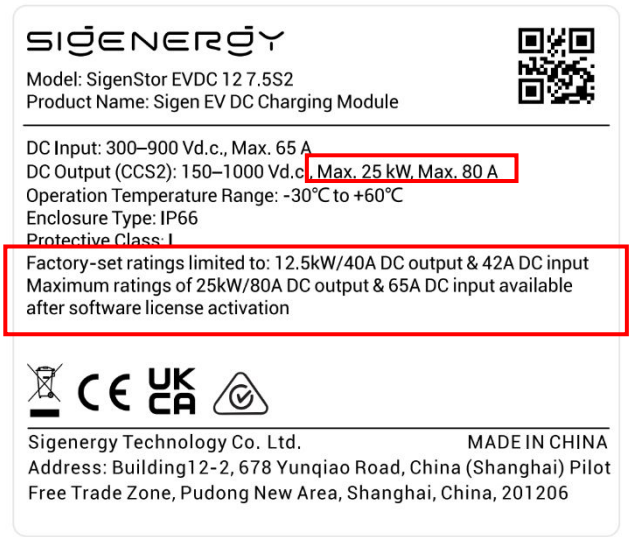
The product label will be updated to indicate that it is upgradeable. The new label states that the factory-set ratings are 12.5 kW, and the capacity can be upgraded to 25 kW via software.

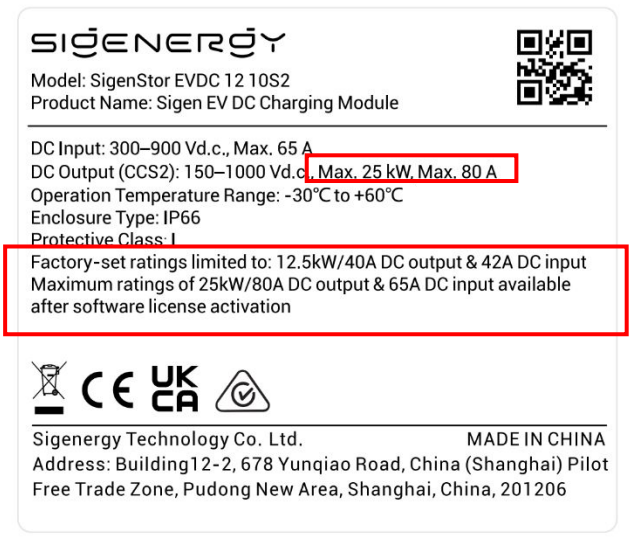
Before





After





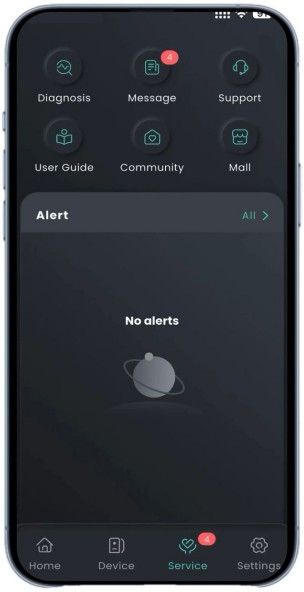
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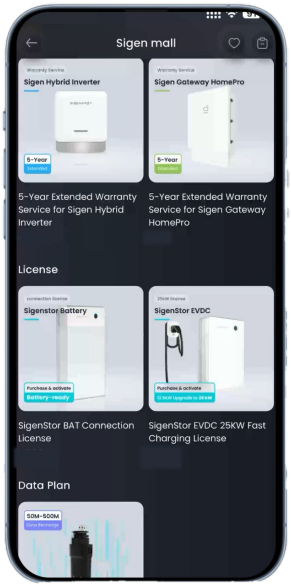
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4. Upgrade Process

The steps to upgrade SigenStor EVDC from 12.5 kW to 25 kW by purchasing a license on mySigen app are as follows:

Step 1: Find "Mall" in the "Service" button. Find "SigenStor EVDC 25 kW Fast Charging License.





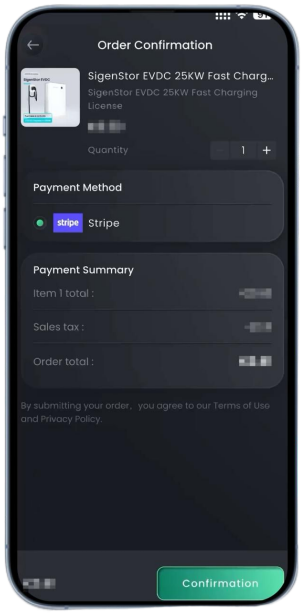
Step 2: Buy it now.

Before making your purchase, please confirm that you have carefully read the instructions on the app. This will help you fully understand your system's capabilities. If you click “OK, I got it,” this indicates that you understand the conditions required for the EVDC to charge at 25kW power.

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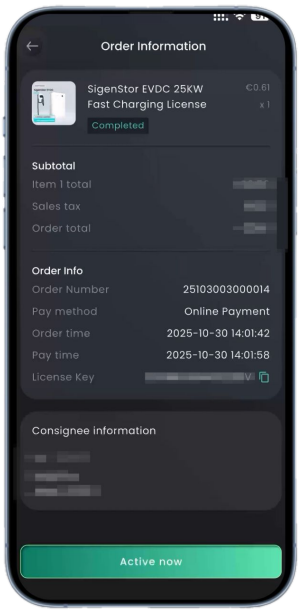
Step 3: Confirm your order. Pay for this order with a credit card. Pay now, and the system will process your order quickly.





Step 4: Check and find your order. Find "License Key" in the order and click the green square icon on the right to copy this key.Click"Active now".
If you have installed multiple systems, you can search the one you need to upgrade.

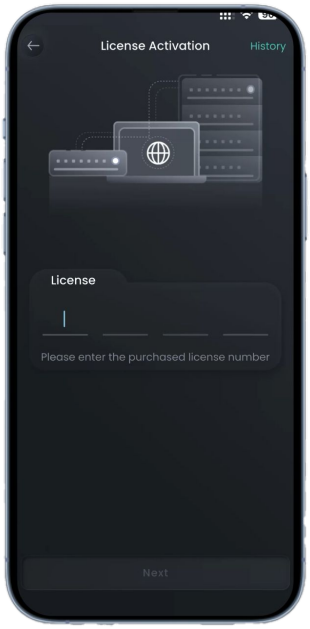


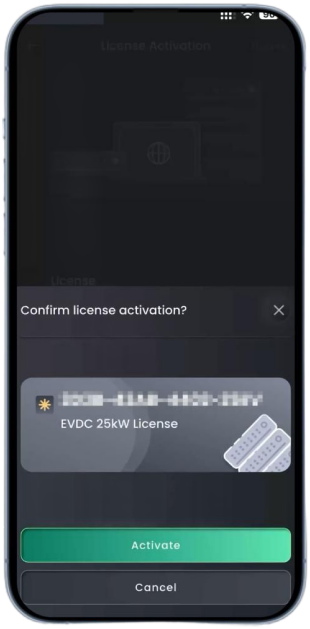


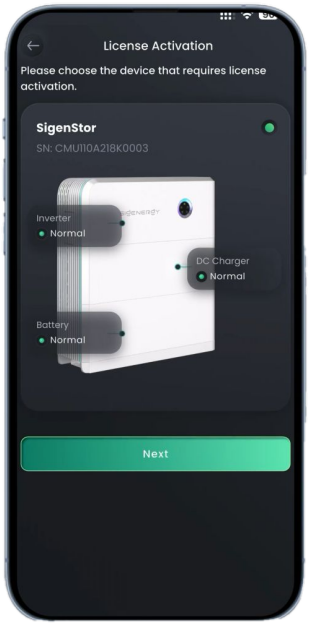
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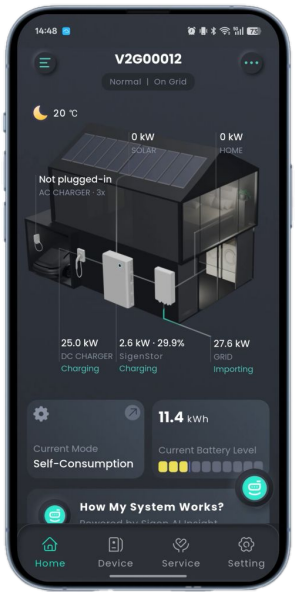
Step 5: Paste your License Key. Click "Next". Confirm the activation. Choose your device and click "Next".







After completing the above steps, you will have successfully upgraded the EVDC from 12.5 kW to 25 kW.



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