

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

1. Introduction

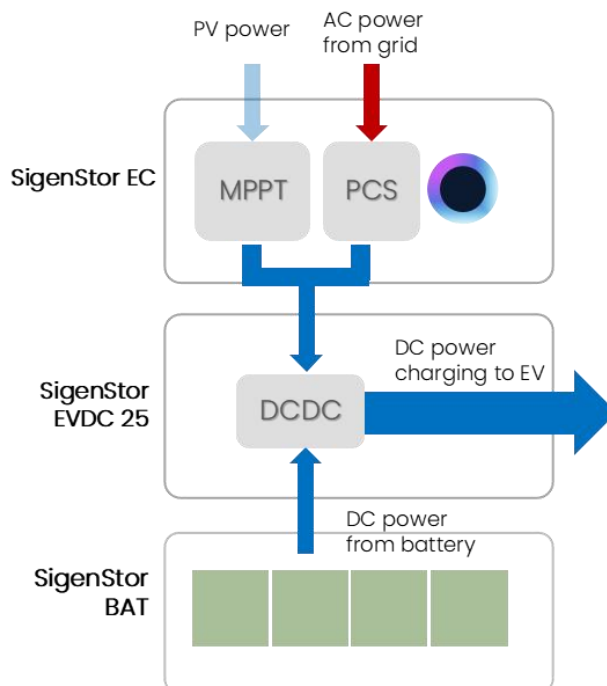
To better meet the increased charging power demands of electric vehicles, Sigenenergy offers customers the option to upgrade their SigenStor EVDC (EVDC for short) power capacity. This means you can purchase an additional license to upgrade your EVDC from 12.5kW to 25kW.

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. Hope you fully understand your system's capabilities before experiencing EVDC 25kW charging.

2. Technical Description

It is worth noting that Sigenenergy supports upgrading your EVDC to 25kW by license activation. But this does not mean that your EVDC will always charge at 25kW. 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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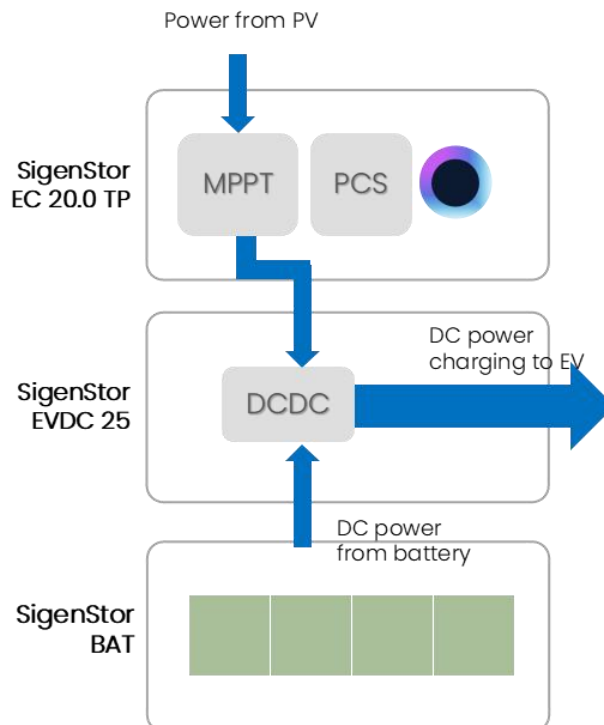
For example

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(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	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.



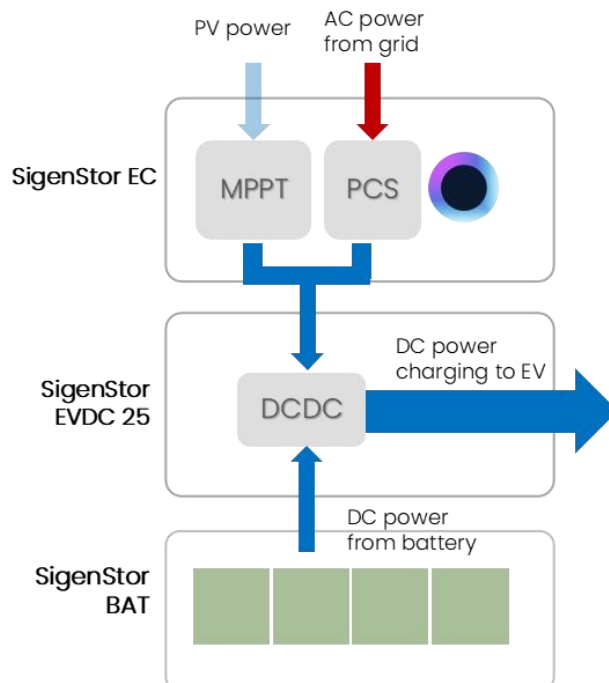
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Case 2 : Fast Charging mode

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, the EVDC charging power depends on the total power of the PV , batteries and grid. The power from the grid is limited by the inverter's rated power. The higher rated power of the inverter, the more power can supply to the EVDC from grid, making it easier for the EVDC to charge at 25kW.



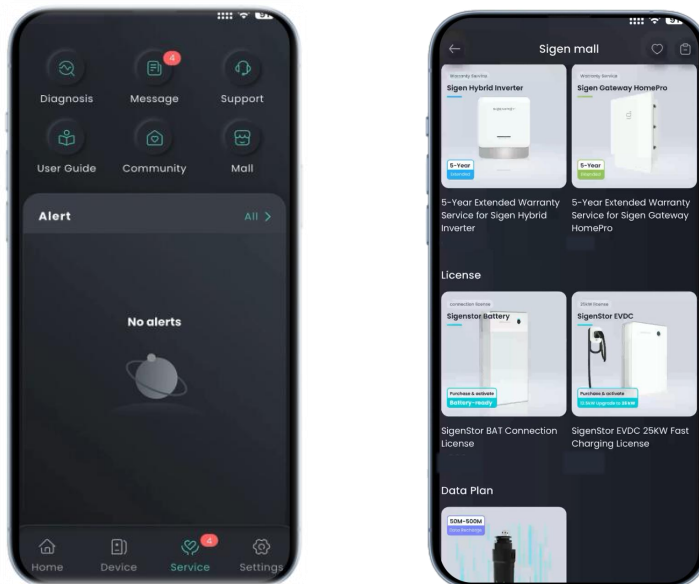
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To sum it up, the license unlocks a higher power limit for your charger from 12.5kW to 25kW, but if your PV output, inverter power, or battery energy cannot support 25kW at that moment, the real-time charging power will be lower than 25kW. This is 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. Upgrade Process

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

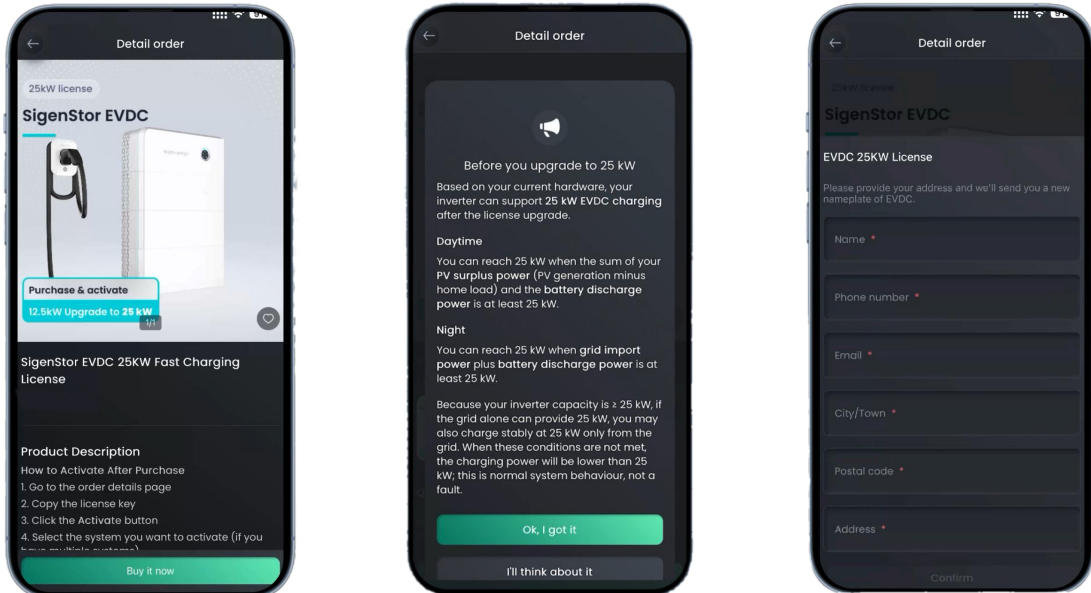
Step 1: Find "Mall" in the "Service" button. Find "SigenStor EVDC25 kW Fast Charging License."



Step 2: Buy it now.

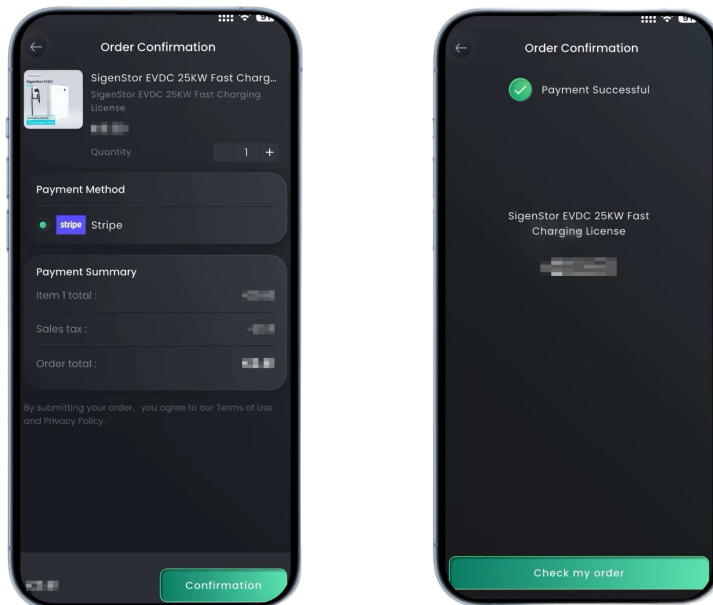
Before making your purchase, please confirm that you have carefully read the instructions on the app. This will help you fully understand your system's capabilities. If you click "OK, I got it," this indicates that you understand the conditions required for the EVDC to charge at 25kW power.

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For the old version of the SigenStor EVDC, the system will automatically pop up this interface to let you fill in the delivery address for the nameplate, we will send it to you free of charge (The new version SigenStor EVDC is shipped with the package).

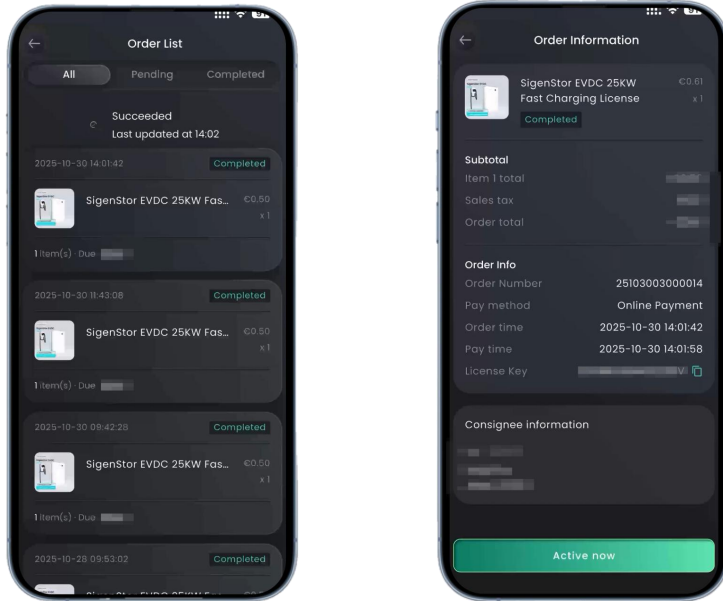
Step 3: Confirm your order. Pay for this order with a credit card. Pay now, and the system will process your order quickly.



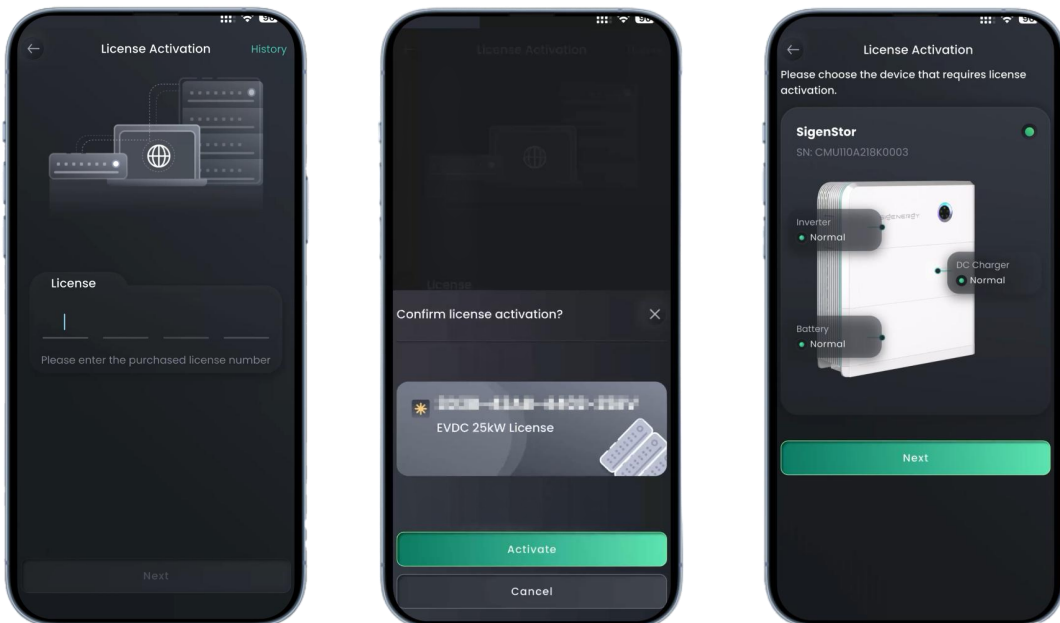
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Step 4: Check and find your order. Find "License Key" in the order and click the green square icon on the right to copy this key. Click "Active now".

If you have installed multiple systems, you can search the one you need to upgrade.

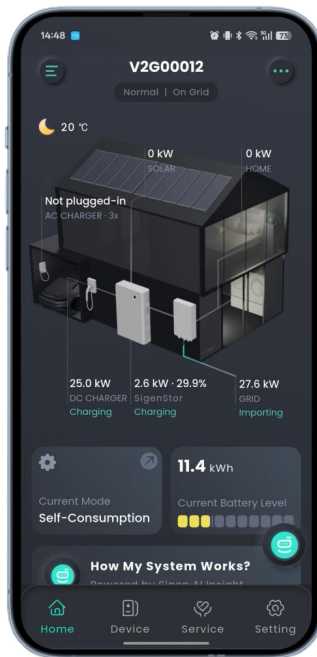


Step 5: Paste your License Key. Click "Next". Confirm the activation. Choose your device and click "Next".



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



To comply with local regulatory requirements you need to manually cover the old nameplate on the SigenStor EVDC products with the new nameplate. For your safety, please wear insulated gloves and insulated shoes when performing this operation.