HANCHU ESS Battery Storage System - **User Guide**

Can I Adjust the Charging Current Remotely?

Version 1.0

Infinity Innovations | HANCHU ESS

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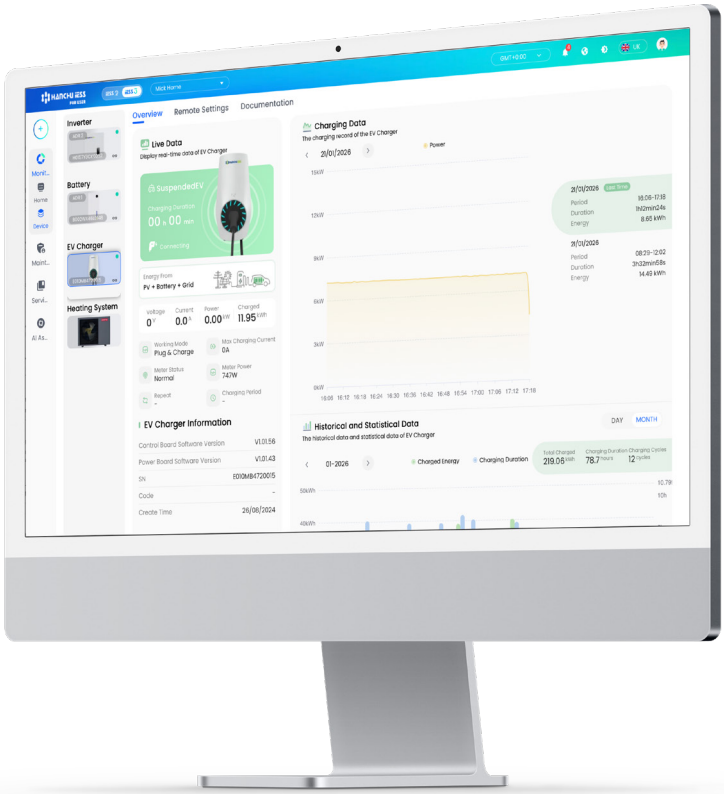
1. Introduction

Yes, you can remotely adjust the charging current of your Hanchu ESS EV charger through the monitoring portal. The charging current directly determines how much power flows into your vehicle's battery. When you reduce the charging current, you are reducing the power going into your car, which means your vehicle will charge more slowly. This feature is useful for managing your energy consumption, protecting your battery, or ensuring your electrical system isn't overloaded during peak usage times.



2. Understanding Charging Current

What is Charging Current?

Charging current is measured in Amperes (A) and represents the flow of electrical power into your vehicle's battery. The higher the charging current, the faster your vehicle charges. Conversely, the lower the charging current, the slower your vehicle charges.

The Relationship Between Current and Power

When you adjust the charging current, you directly affect the power (measured in kilowatts or kW) being delivered to your car:

Higher Current = More Power - Your car charges faster but consumes more electricity from your system

Lower Current = Less Power - Your car charges slower but uses less electricity from your system

For example, if your charger supports a maximum current of 32A at 230V, reducing it to 16A will approximately halve the charging power and charging speed.

Why Adjust Charging Current?

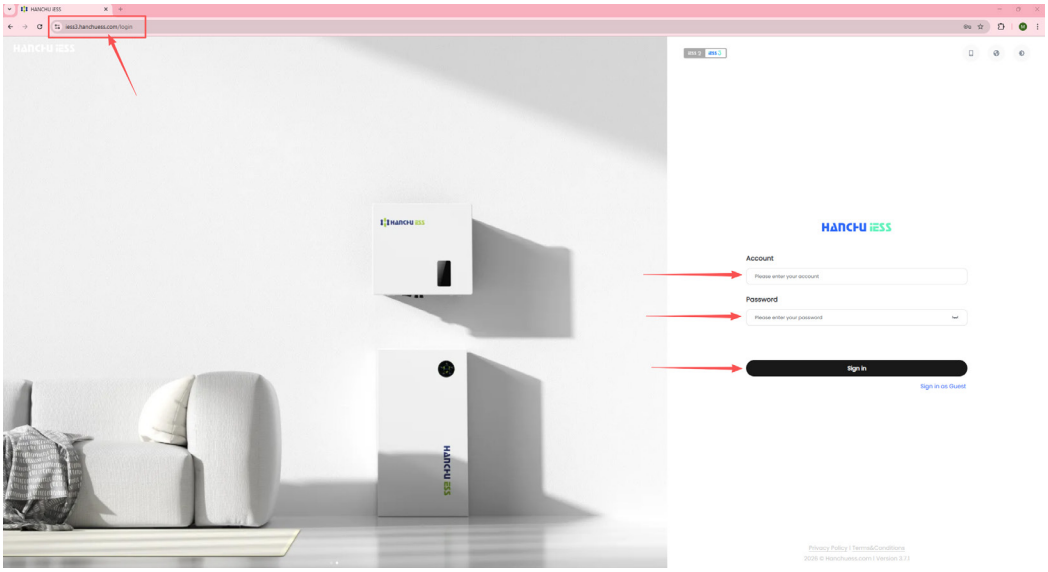
There are several reasons why you might want to adjust your charging current:

1. Manage Peak Electricity Costs - Reduce current during expensive peak hours to lower your electricity bill
2. Protect Your Electrical System - If you're using other high-power appliances, reducing charger current prevents overloading your home's electrical system
3. Extend Battery Life - Slower charging (lower current) can be gentler on your vehicle's battery, potentially extending its lifespan
4. Optimize Solar Usage - Reduce current when solar generation is low to avoid drawing too much from the grid
5. Thermal Management - Lower currents generate less heat, which is beneficial in hot climates

3. Step-by-Step Guide to Adjusting Charging Current

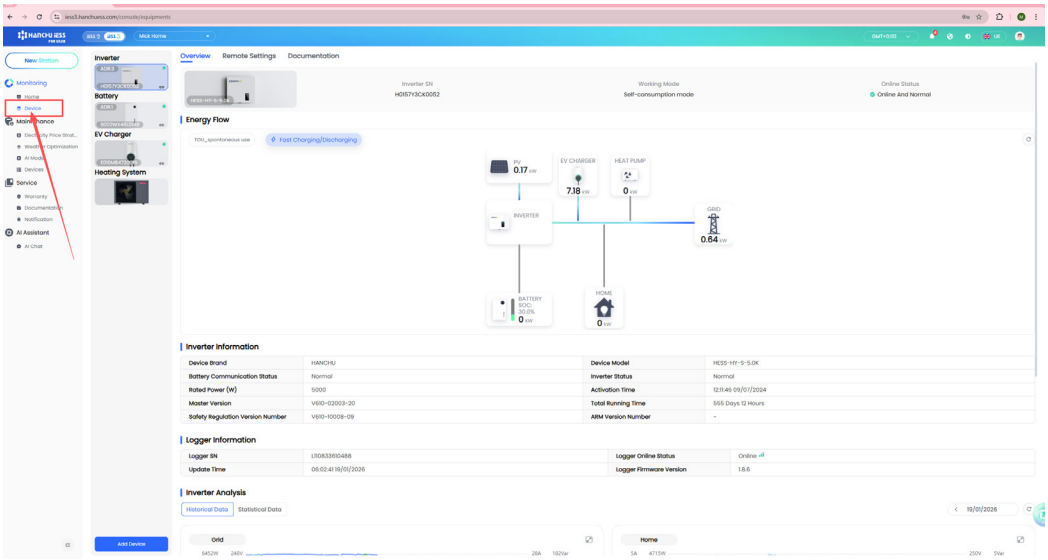
Step 1: Log In to the Hanchu ESS Portal

Begin by accessing the Hanchu ESS web portal. Open your web browser and navigate to the portal URL. You will be presented with the login screen. Enter your **Account** (username) and **Password**, then click the **Sign In** button.



Step 2: Navigate to Devices

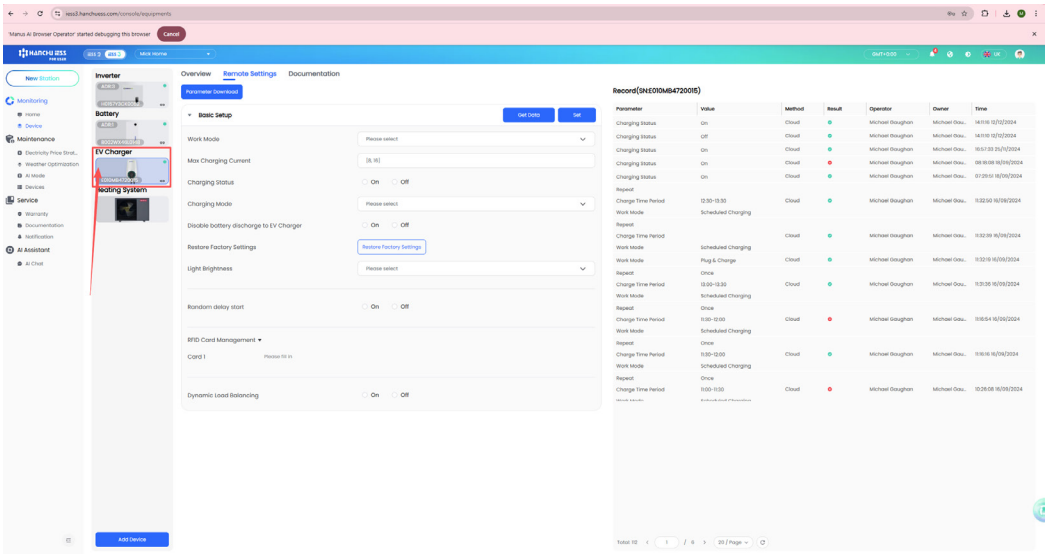
From the main dashboard, locate the Device option in the left-hand sidebar menu. Click on Device to view a list of all components in your Hanchu ESS system.



3. Step-by-Step Guide to Adjusting Charging Current

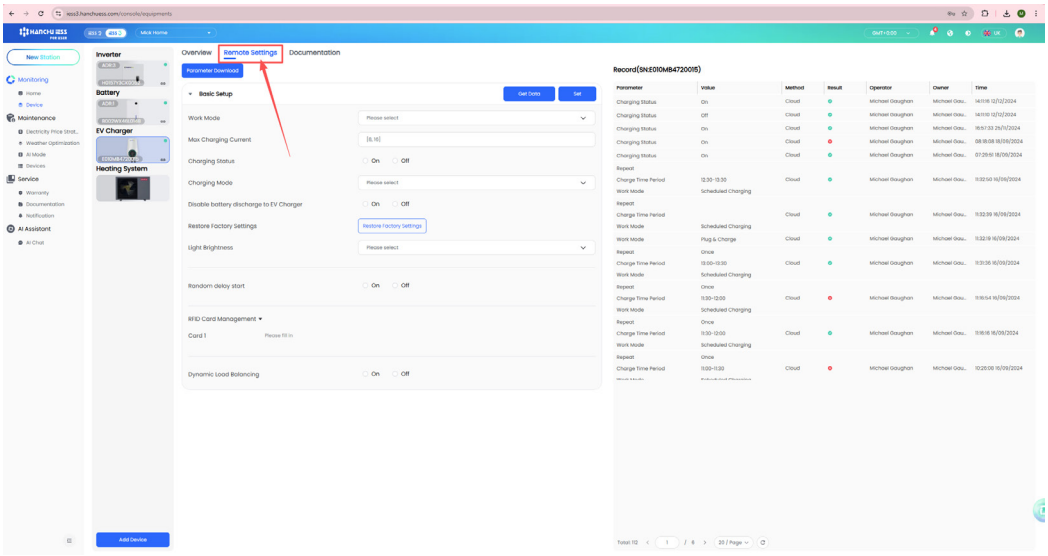
Step 3: Select Your EV Charger

On the devices page, you will see a list of your installed Hanchu ESS components. Click on the **EV Charger** section to select it and view its specific details and settings.



Step 4: Access Remote Settings

At the top of the EV Charger's detail page, click on the Remote Settings tab. This will take you to the remote configuration interface for your EV charger.

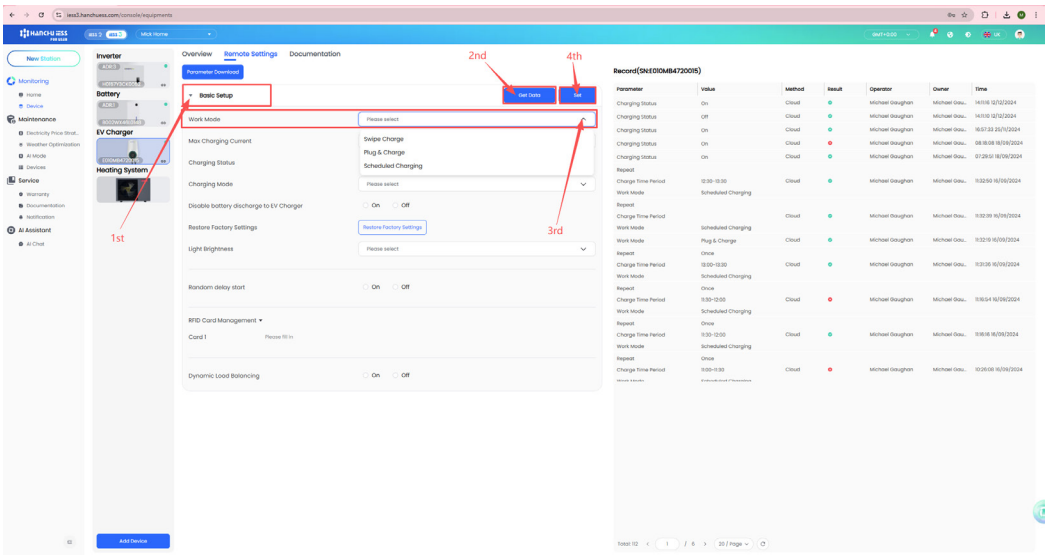


3. Step-by-Step Guide to Adjusting Charging Current

Step 5: Adjust the Charging Current

On the Remote Settings page, you will find the Basic Setup section. To adjust the charging current, follow these steps in order:

1. **Get Data:** First, click the **Get Data** button to retrieve the latest settings from the EV charger.
2. **Open Basic Setup:** The Basic Setup section should already be visible. If not, click on it to expand it.
3. **Locate Max Charging Current:** Find the **Max Charging Current** field. This shows the current maximum charging current value (typically displayed in Amperes, e.g., [6, 16]).
4. **Enter New Current Value:** Click on the input field and enter your desired charging current value. The acceptable range depends on your charger model and electrical installation (typically between 6A and 32A).
5. **Set:** Finally, click the **Set** button to apply your changes. A confirmation message will appear indicating that the setting has been applied.



4. Important Information

Understanding Current Ranges

Different charger models support different current ranges. Your charger will have a minimum and maximum current it can safely handle. Common ranges are:

Minimum Current: Usually 6A (to ensure safe operation)

Maximum Current: Typically 16A, 20A, 25A, or 32A depending on your charger and electrical installation

Attempting to set a current outside these safe ranges may result in an error message.

Immediate Effect

Changes to the charging current take effect immediately after you click the **Set** button. If a vehicle is currently charging, the charging speed will adjust accordingly:

If you increase the current: The vehicle will charge faster (if it supports the higher current)

If you decrease the current: The vehicle will charge slower

Important Notes

Vehicle Compatibility: Your vehicle must support the charging current you set. Some vehicles have their own current limitations

Electrical Safety: Never set a current higher than what your home's electrical installation can safely handle. Consult your electrician if unsure

Default Settings: If you need to restore default settings, contact your installation company

Current During Charging: If you adjust the current while a vehicle is actively charging, the change takes effect immediately

Scheduled Charging: If you have scheduled charging enabled, the new current will apply to future scheduled charging sessions

5. Practical Examples

Example 1: Reducing Current During Peak Hours

If you're on a time-of-use (TOU) tariff with expensive peak hours (e.g., 5 PM to 9 PM), you might reduce the charging current during these times:

- Set current to 6A during peak hours (slower charging, lower cost)
- Increase to 16A or higher during off-peak hours (faster charging, lower cost)

Example 2: Managing Multiple High-Power Devices

If you're using your oven, electric heater, and EV charger simultaneously, reducing the charger current prevents your electrical system from being overloaded:

- Reduce charger current to 10A while other appliances are running
- Increase back to normal when other appliances are off

Example 3: Optimizing Solar Charging

If you have solar panels and want to charge primarily from solar:

- During high solar generation: Set current to maximum (e.g., 32A)
- During low solar generation: Reduce current to 10A to minimize grid draw

6. Need Help?

If you have questions about adjusting your EV charger's charging current, or if you need help understanding the impact of different current settings, please contact your installation company for technical support.