

# **Can two lithium battery packs be used in series**





## Overview

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Yes, you can join two lithium batteries together, but it's essential to ensure they are of the same type, capacity, and voltage. Connecting batteries in parallel increases capacity while maintaining voltage, whereas connecting them in series increases voltage while keeping capacity the same. Why are lithium batteries connected in series?

Lithium batteries are connected in series when the goal is to increase the nominal voltage rating of one individual lithium battery - by connecting it in series strings with at least one more of the same type and specification - to meet the nominal operating voltage of the system the batteries are being installed to support.

How many lithium batteries can be connected in series?

For instance, LiTime allows for a maximum of four 12V lithium batteries to be connected in series, resulting in a 48-volt system. It's always important to consult the battery manufacturer to ensure that you stay within their recommended limits for series connections.

Can lithium-ion batteries be connected in parallel or in series?

Connecting lithium-ion batteries in parallel or in series is not as straightforward as a simple series-parallel connection of circuits. To ensure the safety of both the batteries and the individual handling them, several important factors should be taken into consideration.

When should a lithium battery be connected in series?

You should connect lithium batteries in series when your device requires a higher voltage than a single battery can provide. For example, if your device operates at 7.4V, connecting two 3.7V batteries in series would be appropriate. This setup is commonly used in applications like electric scooters, drones, or other high-voltage devices.

Why do we connect multiple lithium batteries to a string of batteries?



Connecting multiple lithium batteries into a string of batteries allows us to build a battery bank with the potential to operate at an increased voltage, or with increased capacity and runtime, or both.

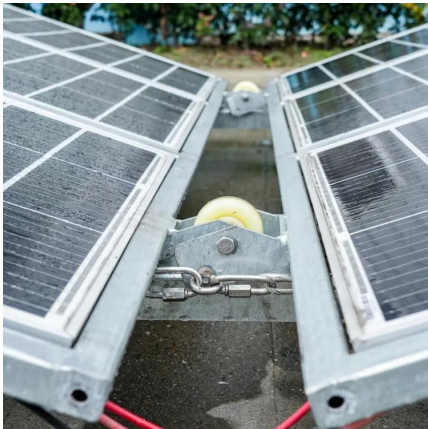
Can I connect two batteries in a series configuration?

Both batteries in a series configuration must have the EXACT same load, meaning you cannot connect a load to just one battery in the series. If you charge one battery you must charge the other to an equal charge level. If you replace one battery, you must replace the other battery. See the example below for series wiring (Figure 5).



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### Charger considerations for two 36v LiFePO4 batteries in series

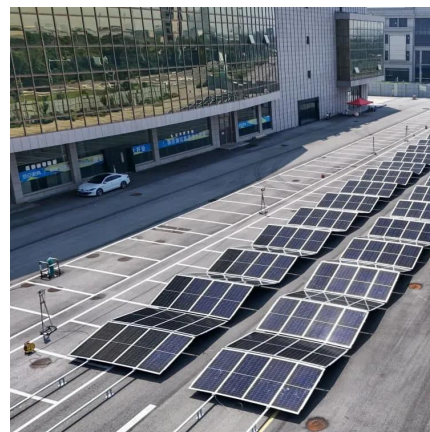
I just bought two 36v batteries from Li Time.  
LiTime 36V 100Ah Lithium Golf Cart Batteries for Club Car According to the charging spec: Charge Method: CC/CV Charge ...

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### Can Batteries with the Same Voltage Be Connected in Series?

When designing or expanding battery-powered systems, a common question arises: Can two battery packs with the same voltage be connected in series? The short answer is yes, but with ...

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### [Combining 2 batterie packs with sep. BMS in parallel](#)

I am thinking of getting 2 lincmn batteries from BMS battery and using them in parallel to get the output amps up, will this work? is their any protection diodes i need to use ? ...

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### Battery Question; I have 2 LiFePo batteries but different brands: ...

You could put a Shunt between each pack & the common DC BusBar, OR a Hall Pickup type (no cutting wires) which can monitor in/out electrons





and even give AH/AH ...

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### [Lithium Series, Parallel and Series and Parallel](#)

Connecting multiple lithium batteries into a string of batteries allows us to build a battery bank with the potential to operate at an increased voltage, or with increased capacity and runtime, or both.

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### [Handbook On Lithium Battery Pack Design](#)

The environment in which the battery pack is used and the electrical connection of the individual cells (series or parallel) are two key considerations when designing a battery pack and working ...

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### [Can You Join 2 Lithium Batteries Together?](#)

Yes, you can join two lithium batteries together, but it's essential to ensure they are of the same type, capacity, and voltage. Connecting batteries in parallel increases capacity ...

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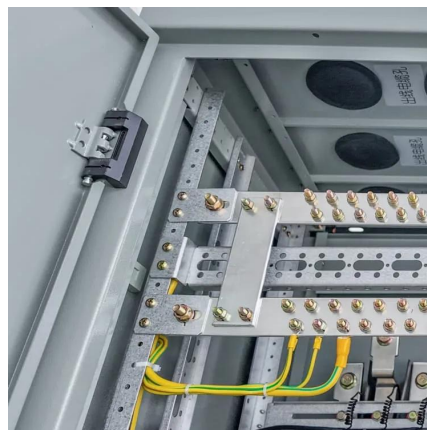




## Can You Hook Battery Packs In Series? Safety Tips And Wiring Battery

Yes, you can hook battery packs in series safely if certain precautions are taken. Connecting battery packs in series increases the overall voltage while maintaining the same ...

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## Battery Question; I have 2 LiFePo batteries but different brands: can ...

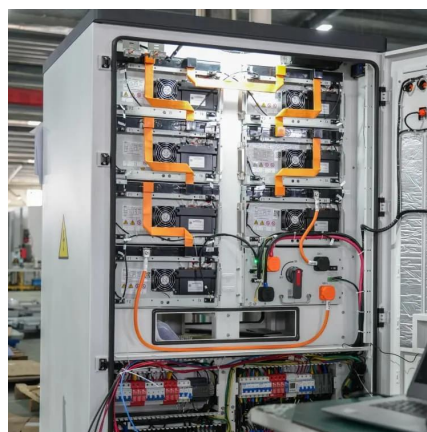
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## Lithium Battery Series & Parallel Operation , Fact Sheets

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## [Lithium Series, Parallel and Series and Parallel](#)

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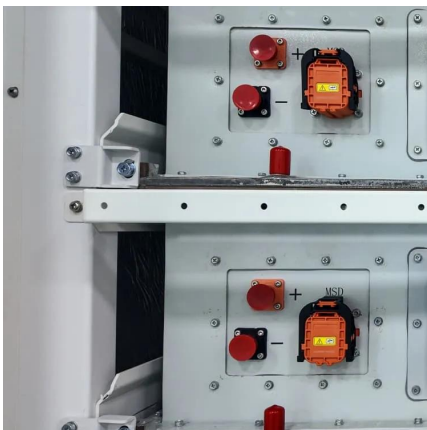
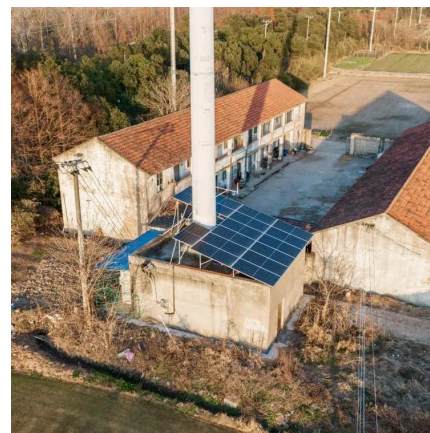
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### **BMS connection cables with series / parallel lithium batteries**

New to this site, based in Wales UK. With a 3 kW solar array, I wish to install 16 lithium batteries (8 in series x 2) and then in parallel giving 24 volts. This was advice from ...

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### **Can You Hook Battery Packs In Series? Safety Tips And Wiring ...**

Yes, you can hook battery packs in series safely if certain precautions are taken. Connecting battery packs in series increases the overall voltage while maintaining the same ...

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### **How to Connect Lithium Batteries in Series and Parallel?**

Knowing how to connect these batteries in series, parallel, or even a combination, can help you tailor their performance to meet specific needs. In this article, we'll explore the ...

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### **Can I run Powertech 12/24volt Lithium batteries in series or parallel packs**

You can use up to two of our Lithium 12v / 24v batteries in series, and up to four in parallel packs. Batteries should be of the same model, and purchased together at the same time, to ensure ...

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