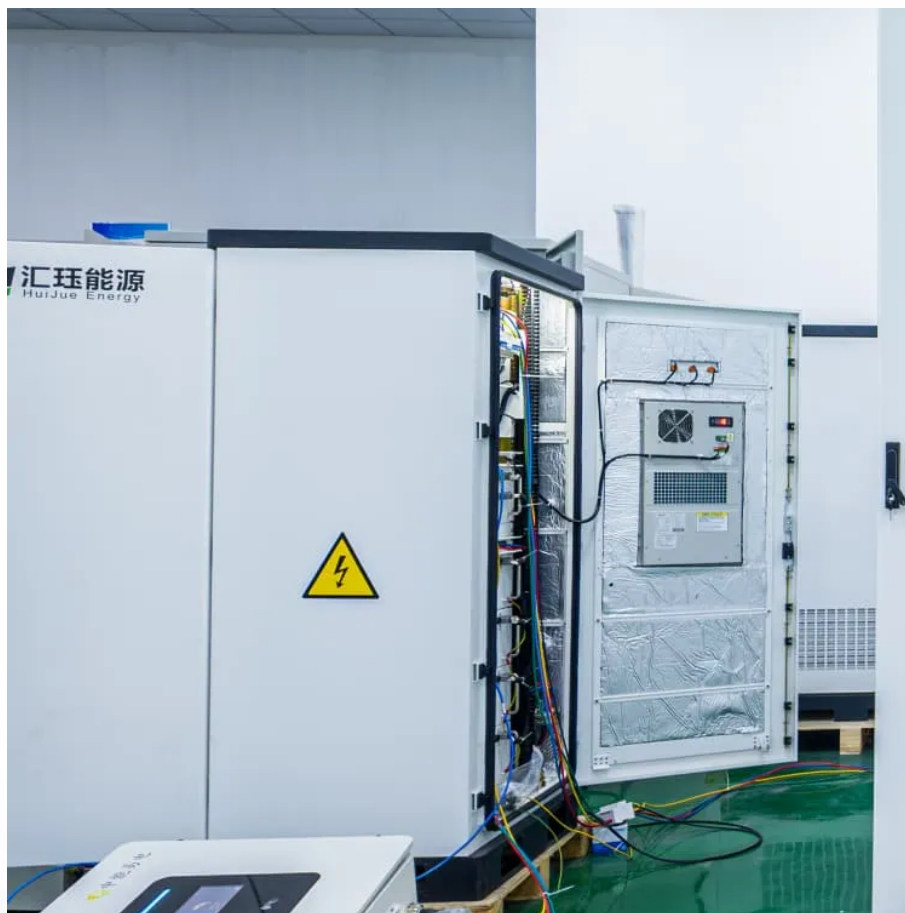


# **Two lithium battery packs in series are DC**





## Overview

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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 batteries are in a series connection?

In each of the examples, the 4 batteries are identified as A, B, C, and D. Example 1, shown in Figure 4, has 2 pairs of series connected batteries joined in a single parallel connection. In this type of arrangement, we refer to each pair of series connected batteries as a "string". Batteries A and C are in series. Batteries B and D are in series.

How to connect two batteries in series?

Simply, connect both of the batteries in series where you will get 24V and the same ampere hour rating i.e. 200Ah. Keep in mind that battery discharge slowly in series connection as compared to parallel batteries connection. You can do it with any number of batteries i.e. to get 36V, 48V, 72V DC and so on by connecting batteries in series.

Are batteries a and C in series?

Batteries A and C are in series. Batteries B and D are in series. The string A and C is in parallel with the string B and D. Notice that the total battery pack voltage is 24 volts and that the total battery pack capacity is 40 amp-hours. Example 2, shown in Figure 5, has 2 pairs of parallel-connected batteries joined in a single series connection.

What is the capacity of a battery pack?

The capacity of the battery pack is the sum of the capacities of the individual



batteries. Again, make sure that all of the batteries are the same size, that is that they have the same amp-hour capacity. There are many ways to connect a group of batteries in both series and parallel at the same time.

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.



## Two lithium battery packs in series are DC

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### [Series, Parallel and Series-Parallel Connection of Batteries](#)

Simply, connect both of the batteries in series where you will get 24V and the same ampere hour rating i.e. 200Ah. Keep in mind that battery discharge slowly in series connection as compared ...

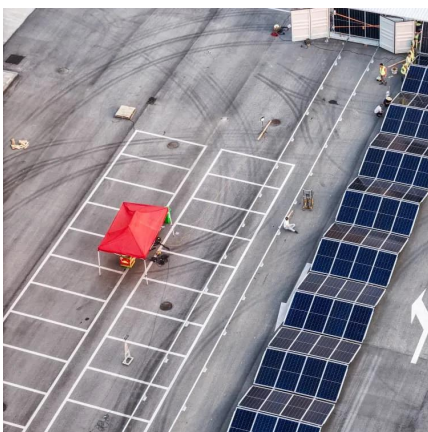
### [Connecting two Li-ion batteries in series, with different capacity](#)

Regardless, connecting the two batteries in series doubles the voltage to up to 33.6 V. If your toy expects a single 3S battery, connecting to two batteries will blow it up. The only ...



### [Connecting two Li-ion batteries in series, with different capacity](#)

I'm going to start by saying this is an "emergency", because the delivery of my new battery cells are delayed. I have two 3S Li-ion batteries: one with 2250 mAh (50 C) and the ...

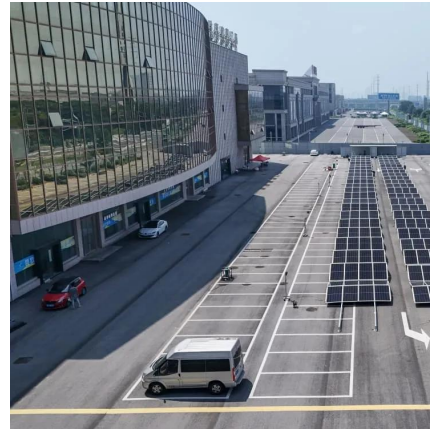


### [Battery Wiring Simplified: Series vs Parallel for RVs, Boats & DIY](#)

Enter series-parallel wiring. This hybrid setup is like building a battery Voltron. Group batteries into series packs first, then wire those packs in



parallel. Real-World Example: ...

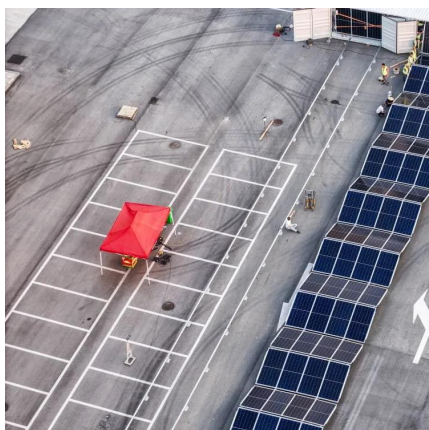


### [Lithium Series, Parallel and Series and Parallel](#)

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.

### [How to Connect Lithium Batteries in Series and Parallel?](#)

In this article, we'll explore the basics and provide detailed, step-by-step instructions on how to connect lithium batteries in series, parallel, and series-parallel configurations. Here, ...



### [Lithium-Ion Battery Packs , Electronic Components Distributor ...](#)

A battery pack is a set of any number of battery cells connected and bound together to form a single unit with a specific configuration and dimensions. They may be configured in series, ...



### Batteries and Chargers Connected in Series and Parallel

Example 1, shown in Figure 4, has 2 pairs of series connected batteries joined in a single parallel connection. In this type of arrangement, we refer to each pair of series connected batteries as ...



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