

## A-Core Container

# Lithium battery pack anti-four-string



## Overview

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Can a lithium ion battery pack have multiple strings?

Whenever possible, using a single string of lithium cells is usually the preferred configuration for a lithium ion battery pack as it is the lowest cost and simplest. However, sometimes it may be necessary to use multiple strings of cells. Here are a few reasons that parallel strings may be necessary:

What is a battery pack?

They may be configured in series, parallel or a mixture of both to deliver the desired voltage, capacity, or power density. Packs are identified by cell size, number of cells, battery structure, chemistry, chargeability, capacity, and voltage rating. Lithium-Ion Battery Products - Battery Packs are in stock at Digikey.

What is a parallel lithium battery pack?

According to the parallel principle, the current of the main circuit is equal to the sum of the currents of the parallel branches. Therefore, a parallel lithium battery pack with “n” parallel batteries achieves the same charging efficiency as a single battery, with the charging current being the sum of the individual battery currents.

Where can I buy lithium-ion battery products?

Lithium-Ion Battery Products - Battery Packs are in stock at Digikey. Order Now! Lithium-Ion Battery Products ship same day.

How do you design a lithium battery pack?

When designing a lithium battery pack, engineers have two primary options: connecting individual cells directly in parallel or connecting strings of cells in parallel. Each approach has its advantages and disadvantages, and the choice depends on the specific application needs and design goals.

Why should lithium ion strings be paralleled?

This is essential to prevent the strings from runaway in the event of imbalance between cells or a cell failure. Never leave two lithium ion strings permanently paralleled or leave multiple strings paralleled without monitoring systems and a means of automatic disconnection.

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