

# The function of a complete set of lithium batteries for power tools





## Overview

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Lithium-ion batteries can store a substantial amount of energy in a compact form, which means that power tools can be designed to be lighter and more ergonomic without sacrificing power or runtime. What are the applications of lithium-ion batteries in everyday life?

Thus, the development of cordless devices is speeding up with lithium-ion cells. They enable hammer drills, cordless saws, reciprocal saws, cordless vacuum cleaners, and the like. These battery packs are also sold for powering high-power work lights. Figure 5 shows a state-of-the-art high-end power tool with a 36-V lithium-ion battery pack.

What is a lithium ion battery used for?

The battery packs for these devices usually consist of 3 to 12 cells, in parallel or serial connection. Another application of lithium-ion batteries are power tools, with a voltage of 3.6 to 36 V, depending on the usage. In electric mobility, lithium-ion batteries play an increasingly important role.

What is a lithium-ion battery pack used for?

They enable hammer drills, cordless saws, reciprocal saws, cordless vacuum cleaners, and the like. These battery packs are also sold for powering high-power work lights. Figure 5 shows a state-of-the-art high-end power tool with a 36-V lithium-ion battery pack. Battery cost for lithium-ion is rather high.

What is a lithium-ion battery?

Hybrid buses and trucks and electric busses are also equipped with lithium-ion batteries. In stationary applications, lithium-ion batteries are available as mini storage devices with around 2 kWh up to 40 MWh in larger plants. Fig. 2.1 shows the basic principle and function of a rechargeable lithium-ion battery.



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### Lithium Ion Batteries - Tools In Action - Power Tool Reviews

Lithium-ion (Li-ion) batteries have revolutionized the power tool industry, offering enhanced performance, longer run times, and greater convenience. This guide delves into the history, ...

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### How Lithium-ion Batteries Work , Li-ion Explained

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### Lithium Batteries in Power Tools: A Performance Comparison

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### LITHIUM BATTERIES 101

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## Lithium Batteries in Power Tools

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## A Guide to Choosing Best Power Tool Battery ...

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## Lithium-ion battery overview

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## What's the difference between batteries for ...

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How Lithium-Ion Batteries WorkReducing Tool Size and WeightHow Lithium-Ion Battery Technology ChangesParts to A WholeDesigning Li-Ion Battery PacksPaul Fry on Energy Cells vs Power CellsHow Electronics Let Lithium-Ion Batteries Work EfficientlyCell Balancing and VoltageBosch Tools on How A Cordless Power Tool WorksThe Future of Lithium-Ion BatteriesJason:Lithium-ion technology has changed with regards to the role the battery cells play in the system. There are three components to a lithium battery pack: the battery cells, the electronics, and of course, the tool. For lithium-ion to function well, electronics are essential. They control the battery and the movement of energy. The very nature o See more on protoolreviews Occupation: General ManagerPublished: Jun 22, 2021MarketsandMarketsImpact of Lithium-Ion Batteries on Power Tools IndustryAug 6, 2025 · The power tools industry has undergone a significant transformation over the past few decades, largely driven by advancements in battery technology. At the forefront of this ...

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