

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





Overview

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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