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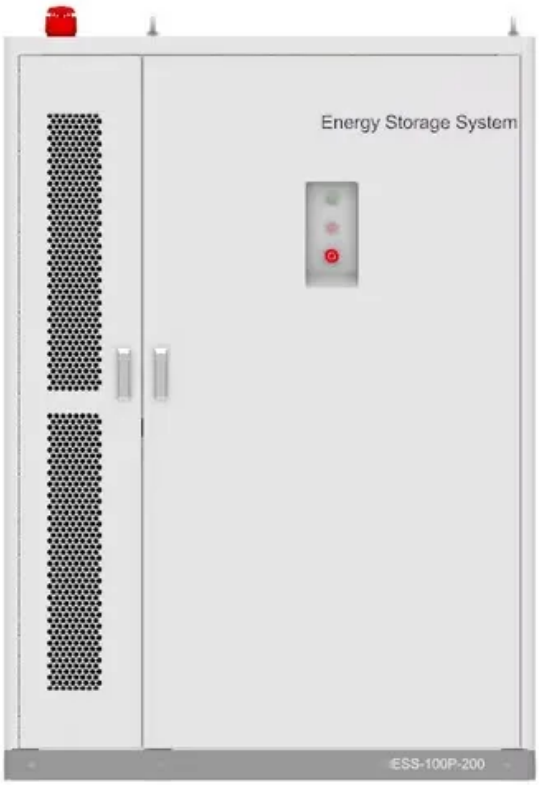
Cylindrical lithium iron phosphate battery has high cost performance



Overview

What is a cylindrical battery?

At present, cylindrical batteries are mainly steel-cased cylindrical lithium iron phosphate. This cylindrical battery has high capacity, high output voltage, and good charge and discharge cycle performance. Lithium iron phosphate belts are promised to be used in solar lamps, lawn lamps, backup energy sources, power tools, toy models, etc.

What is a lithium ion battery?

Lithium-ion batteries (LIBs) play an important role in people’s daily lives [1, 2, 3]. The most often used battery types are cylindrical, prismatic, and pouch cells .

Which lithium-ion batteries are suitable for next-generation batteries?

In order to provide design guidance for the development of next-generation batteries, this article presents a teardown analysis of two commercial lithium-ion batteries: the Tesla 4680 cell and the BYD Blade cell. Insights into these cells' electrical, mechanical, material, and process designs are provided.

Can lithium polymer batteries be developed based on customer needs?

Lithium battery manufacturers can also develop new battery cell models based on customer needs. However, the existing lithium polymer battery cell models are few and cannot meet market demand. At the same time, the cost of developing new models of lithium polymer batteries is relatively high.

What are the different types of lithium batteries?

The three shapes of lithium batteries will eventually become cylindrical batteries, prismatic batteries and lithium polymer batteries through cylindrical winding, prismatic winding, and prismatic lamination. Different packaging structures mean different characteristics, so what are their differences?

Part 1. What’s the cylindrical lithium battery?

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What is a lithium polymer battery?

Lithium polymer batteries are currently the least used battery form in electric vehicles. But in fact, we are not unfamiliar with it. Most of the batteries in mobile phones are lithium polymer batteries. The biggest difference between lithium polymer, cylindrical, and prismatic batteries is that their outer casing is made of aluminum-plastic film.

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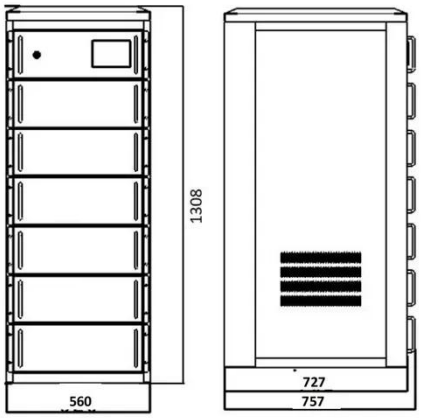

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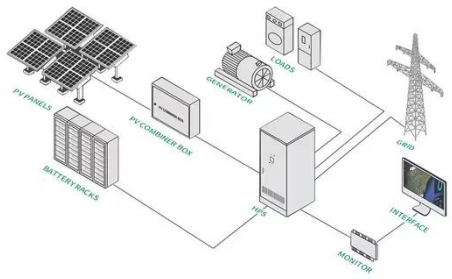

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