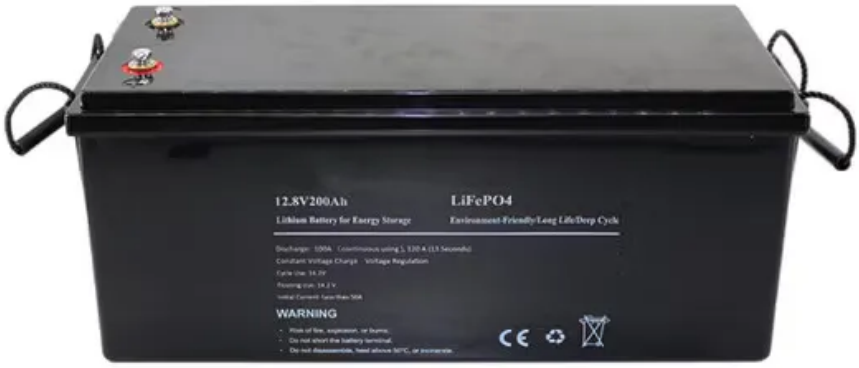
Sodium battery energy storage development prospects



Overview

Sodium-ion batteries offer clear advantages over lithium-ion technology, making them a strong contender in the future of energy storage. However, current NIB technology still falls short of established LIB systems, such as those based on LiFePO4, in. Are Salt Batteries the Next Big Energy Solution?

. China 's sodium-ion battery market is expected to expand from around 10 gigawatt-hours (GWh) in 2025 to roughly 292 GWh by 2034, implying an average annual growth rate of about 45%. By the end of this decade, China is forecast to account for more than 90% of global sodium-ion battery output. While CATL has been making sodium-ion batteries for some time, production commitment has increased dramatically in 2026. CATL introduced its Naxtra line of batteries earlier in 2025 and has now announced plans for volume production of sodium-ion batteries this year, with integration into production.

Sodium battery energy storage development prospects

Next-generation anodes for high-energy and low-cost sodium-ion ...

Abstract Sodium-ion batteries (NIBs) are increasingly becoming commercially viable alternatives to lithium-ion batteries (LIBs), driven by sodium's lower cost and greater resource availability.

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Sodium-Ion Batteries Now Competitive in Niche Energy Storage ...

Sodium-ion batteries represent a promising and sustainable alternative to Lithium-ion batteries in today's energy storage sector. As the world anticipates lithium demand exceeding supply ...

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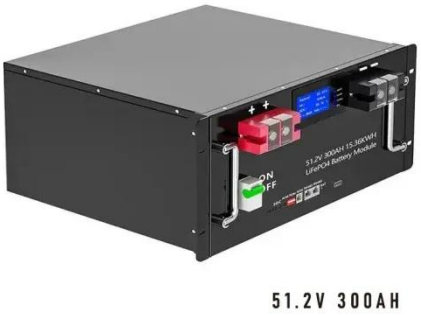

Sodium-ion batteries: Current status and future prospects

Although significant progress has been made in the material development and battery design of sodium-ion batteries, they still face multiple challenges, including material structural ...

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Recent advances in Sodium-ion

battery research: Materials, ...

Although sodium-ion batteries generally have a lower energy density compared to lithium-based batteries, they exhibit significant potential for large-scale uses such as grid energy storage,

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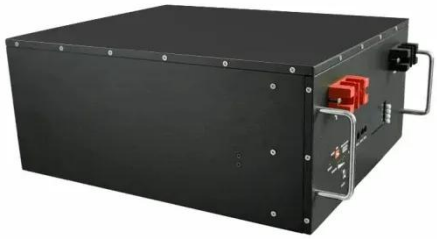

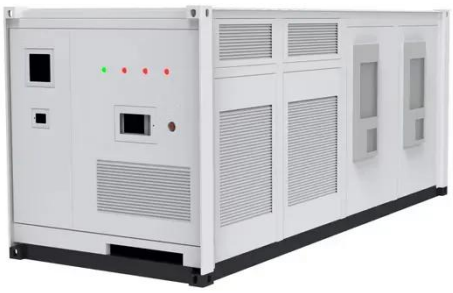

Recent Progress and Prospects on Sodium-Ion Battery and All-Solid ...

Moreover, all-solid-state sodium batteries (ASSBs), which have higher energy density, simpler structure, and higher stability and safety, are also under rapid development. Thus, SIBs and ...

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Sodium-Ion Batteries Will Gain Ground This 2026 , IMI

Suited for stationary energy storage applications Sodium-ion batteries are poised to replace lead-acid cells in combustion engines and support stationary energy storage, where safety and cost ...

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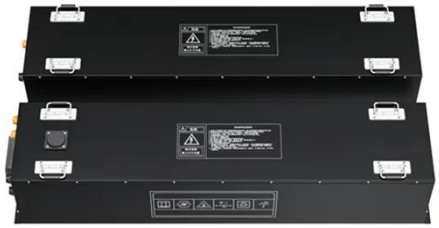
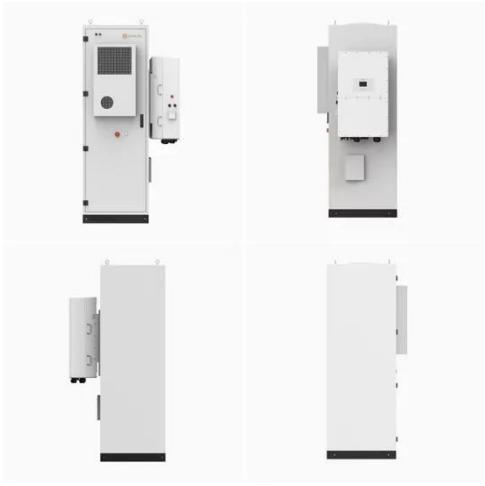


Advancements in sodium-ion batteries technology: A comprehensive ...

In conclusion, while challenges remain,



SIBs are poised to become a key technology for sustainable energy storage, with ongoing research and development paving the way for their ...

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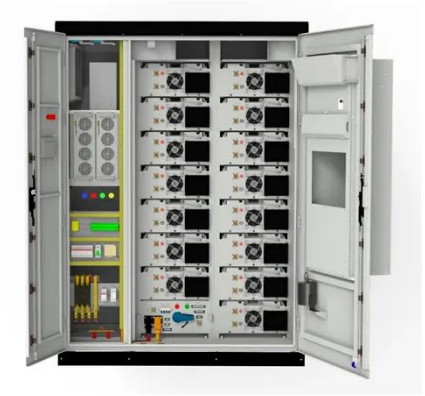
Technology Strategy Assessment

Much of the attraction to sodium (Na) batteries as candidates for large-scale energy storage stems from the fact that as the sixth most abundant element in the Earth's crust and the fourth most abundant ...



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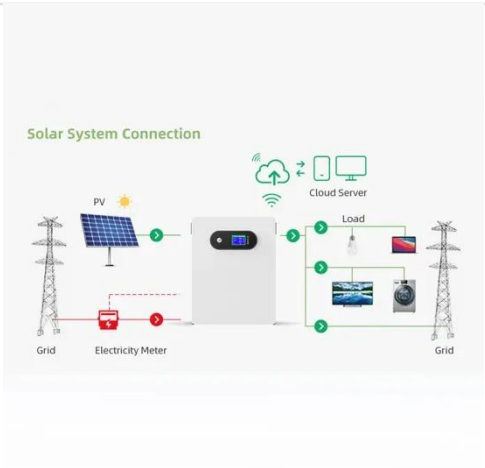

Why Sodium-Ion Batteries Are Happening Now

While some applications like energy storage have switched to LFP, until now sodium-ion batteries have not been produced at the same volume levels. The question is, why?

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Sodium-ion batteries: state-of-the-art technologies and future prospects

The study's findings are promising for advancing sodium-ion battery technology, which is considered a more

sustainable and cost-effective alternative to lithium-ion batteries, and could pave ...

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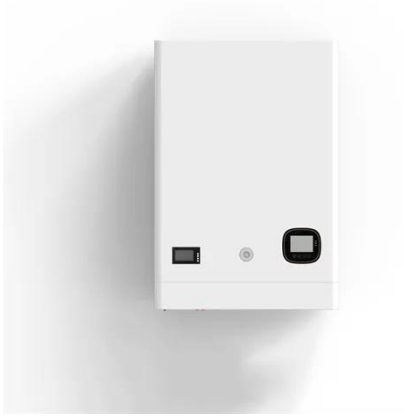

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