

Sodium-ion UPS power supply system



AI Overview

Sodium-ion UPS systems offer a sustainable, cost-effective, and thermally stable alternative to traditional lithium-ion and lead-acid UPS solutions. Overview Sodium-ion batteries are emerging as a promising technology for Uninterruptible Power Supply (UPS) systems, particularly in data centers, industrial facilities, and critical infrastructure. Unlike lithium-ion batteries, sodium-ion batteries use abundant sodium resources, which reduces material costs, mitigates supply chain risks, and lowers environmental impact due to less intensive mining and manufacturing processes. These batteries are compatible with modular UPS systems, such as the GTM-10 series, which supports flexible configurations ranging from 20kVA to 60kVA and allows parallel expansion up to 360kVA. Technical Features Battery Chemistry: Sodium-ion batteries typically use layered metal oxides, phosphate-based polyanionic compounds, or Prussian blue analogues for cathodes, and hard carbon or porous carbon for anodes. Aluminum can be used as the anode current collector, unlike copper in lithium-ion batteries. Thermal Stability: Sodium-ion batteries perform reliably in high-temperature environments, reducing risks of overheating or short circuits, making them ideal for high-load applications. Voltage and Capacity: Common configurations include 12V 100Ah batteries, suitable for UPS systems in the 1-15kVA range. Safety and Longevity: Sodium-ion batteries offer superior safety, longer cycle life, and stable performance under varied environmental conditions compared to lead-acid and some lithium-ion options. Advantages Cost-Effectiveness: Sodium is abundant and inexpensive, providing stable pricing and lower total cost of ownership. Environmental Sustainability: Reduced carbon footprint and easier recyclability make sodium-ion batteries a greener alternative. Scalability: Modular UPS systems allow easy expansion without large-scale replacements, supporting growing power demands. Intelligent Monitoring: Modern UPS systems integrate smart battery man...

Article Content

Sodium-Ion Battery Market Size, Share Report, 2026-2033

As solar and wind installations increase, utilities require storage technologies that can reliably deliver power for several hours, and sodium-sulfur systems meet this

All-in-one Sodium-ion Battery UPS 6kVA-40kVA

·6-40K rack UPS are available to give you the most reliable backup power. ·Built-in sodium battery module to provide long-term backup power and the hot

Uninterruptible Power Supply (UPS) | Schneider Electric

Explore a range of 3-phase UPS systems that deliver high availability and reliability with modular UPS and lithium-ion battery options. High-efficiency, fully

Sodium-Ion Battery Energy Storage | Low-Cost

Discover FFDPOWER sodium-ion battery energy storage solutions. Cost-effective, safe, and ideal for commercial and grid-scale stationary applications.

Influence of Particle Size and Mass Loading of Hard

Abstract and Figures Sodium-ion batteries (SIBs) represent great opportunity for stationary storage, back-up power supply, and light electric

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Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

Uninterruptible Power Supply (UPS) Utilizing Sodium

This project presents what may be the most ideal use of these batteries, that is, being used for rapid switching, backup power, and power conditioning within a

How to Choose the Right Sodium-ion Battery for UPS System

This article explores the value of 12V sodium-ion batteries in UPS applications. It covers key technologies, system compatibility, market trends, real-world use cases, and procurement tips to

Salt batteries are about to shake up EVs and grid storage

Technology Salt batteries are about to shake up EVs and grid storage Today, most rechargeable batteries are made from lithium ions, but sodium-ion alternatives could make battery

GM Energy introduces V2G support and new energy storage battery ...

Recognizing this, GM also announced sodium-ion batteries that are purpose-built specifically for Energy Storage Systems (ESS) to support the electrical grid.

Sodium-Ion | Mitsubishi Electric

Dive into the three most popular types of Sodium-ion batteries sorted by their cathode and what chemistries are being pursued by the UPS industry.

Energy Storage System Battery Manufacturer

Great Power is a leading battery supplier for the energy storage systems, with 20+ years of experience in Lithium-ion battery R&D and manufacturing.

CATL Unveils Sodium-Ion Battery System for Grid Storage -

Contemporary Amperex Technology Co. Limited (CATL) introduced the TENER Sodium energy storage system in Munich, Germany, on June 29, 2026. The company said the system is the

Sodium-Ion vs Lithium-Ion Batteries in UPS Systems: Which

As sodium-ion battery technology matures, UPS users are gaining a new alternative to lithium-ion batteries that offers greater safety, lower material costs, and stronger sustainability

Substation Components—Part 6: Station Batteries and

Substation Components—Part 6: Station Batteries and DC Supply In substations, the DC system is critical for protection, control, and SCADA during

Sodium-Ion UPS Battery Market Research Report 2033

Sodium-ion UPS systems are becoming the preferred choice for data centers due to their superior safety profile, long cycle life, and cost advantages over traditional lithium-ion batteries.

Cathode Materials for Sodium-Ion Batteries: A

Lithium-ion batteries have dominated the energy storage landscape for decades. Yet rising demand for lithium, cobalt, and nickel has exposed the

Sodium-ion battery order for grid storage breaks records

The single largest sodium-ion battery order ever signed isn't for cars. It's for the power grid. In April 2026, the world's biggest battery maker signed a deal for 60 GWh of sodium-ion cells ...

Benchmark Mineral Intelligence

Current IOSCO-assured prices for lithium, cobalt, nickel, graphite & batteries. Mine-to-grid supply chain intelligence & forecasts from the world's largest analyst team. Get trusted market insights.

Sodium-Ion Battery Market Analysis and Forecast 2025-2035: Focus

The sodium-ion battery market is emerging as a viable alternative to lithium-ion technology amid concerns about lithium's scarcity, cost, and environmental impact. These batteries are gaining ...

All-in-one Sodium-ion Battery UPS 60-40k

At the same time, sodium-ion batteries have better thermal stability, and sodium-ion battery UPS systems are gradually becoming the preferred energy solution for data centers and other critical

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Sodium-Ion Battery Energy Storage Systems – PHENOGY

Sodium-ion battery storage for decentralized energy supply. Safe and sustainable BESS for commercial and industrial use.

Europe Sodium-Ion Battery Analysis Report 2025-2035, Competition ...

The Europe sodium-ion battery market is set to skyrocket, increasing from USD 50.6 million in 2024 to USD 1.49 billion by 2035, with a CAGR of 38.24% from 2025-2035. This growth is

Xtreme Power Sodium UPS

Xtreme Power Sodium UPS Natron's patented Prussian blue electrodes store and transfer sodium-ions faster, more often, and with lower internal resistance than

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.sphplantsales.co.za>

Email: info@sphplantsales.co.za

Phone: +27 64 827 3915

Address: Unit 9, Highveld Technopark, 43 Atlas Road, Johannesburg, 2196,
South Africa

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