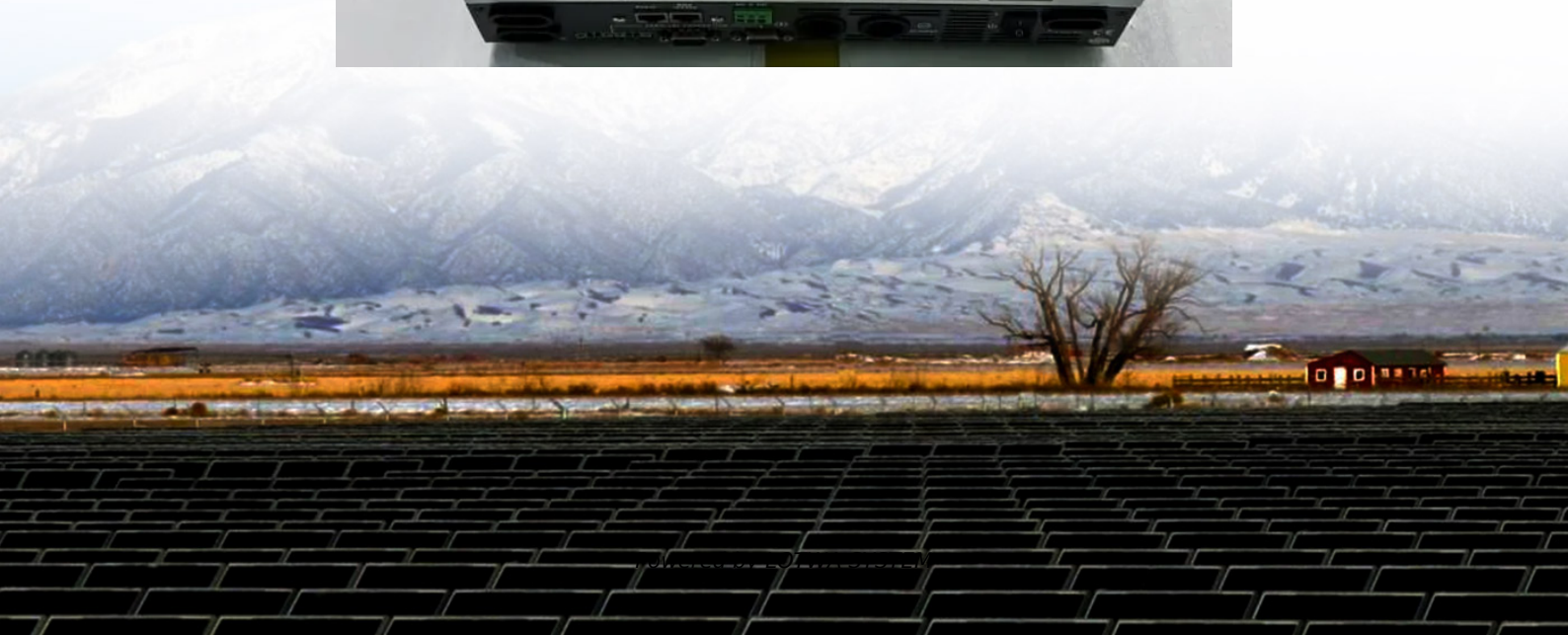


Solid-state battery portable power source





Overview

What is a solid-state battery?

As the name suggests, the solid-state battery has a solid electrolyte material, which offers far-reaching capabilities than traditional batteries, such as higher energy density, high specific energy, and better safety.

Are photo-rechargeable portable power sources based on lithium-ion batteries?

Here, we demonstrate a new class of monolithically integrated, photo-rechargeable portable power sources based on miniaturized crystalline Si photovoltaics (c-Si PVs) and printed solid-state lithium-ion batteries (LIBs).

What is a monolithically integrated portable power source?

Monolithically integrated, photo-rechargeable portable power sources based on miniaturized Si solar cells and printed solid-state lithium-ion batteries † The combination of energy generation and energy storage systems is the ultimate solution to meet the ever-increasing demand for high-energy-density power sources.

Are solid state batteries better than LiFePO₄ batteries?

Solid-State Battery: Solid-state batteries have up to 2.5x higher energy density compared to LiFePO₄ batteries and traditional lithium-ion batteries. This means they can store more energy in the same volume or weight, which can lead to longer lasting and more powerful devices.



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Monolithically integrated, photo ...

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