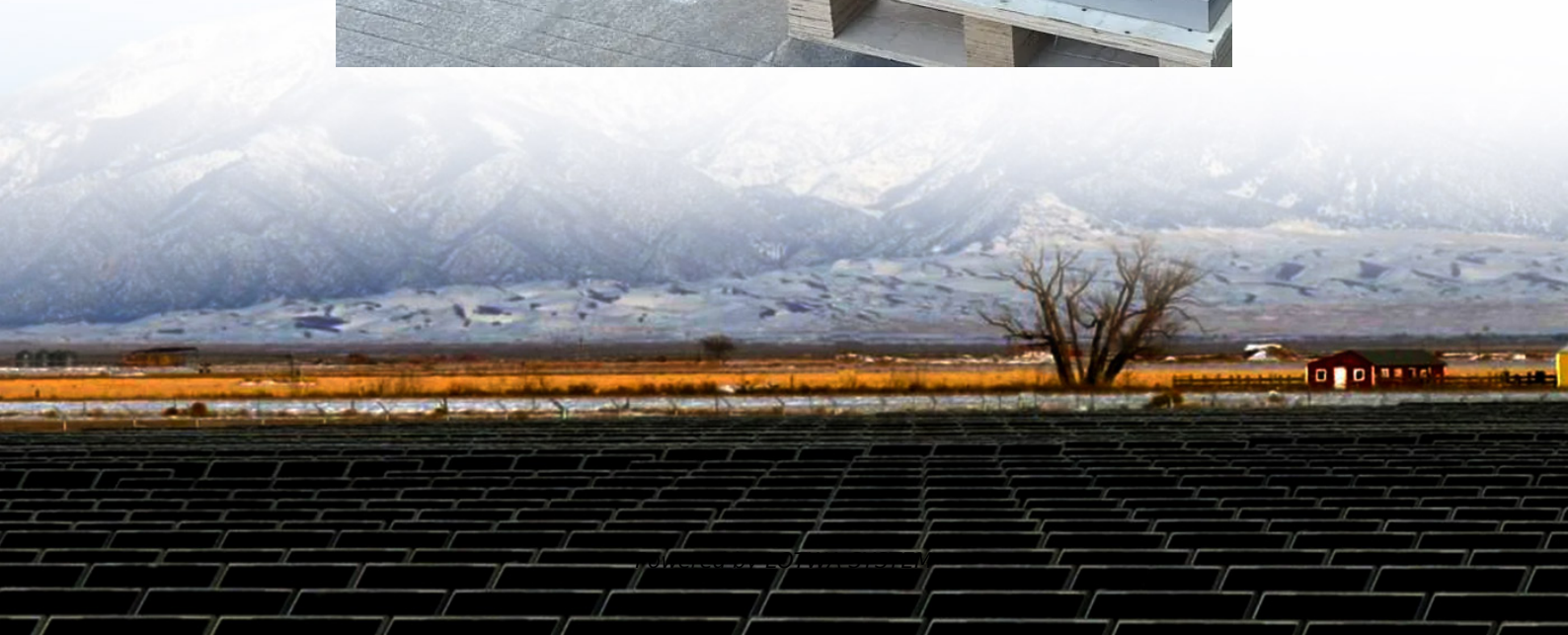


Energy storage batteries used in space stations





Overview

Are lithium ion batteries good for space missions?

In recent decades, lithium-ion (Li-ion) batteries have become the preferred choice for powering space missions, replacing older nickel-based and silver-zinc battery chemistries. Their high energy density, long cycle life, and superior weight-to-power ratio make them ideal for space applications.

Why do spacecraft need a battery?

Space exploration demands high-performance, reliable, and long-lasting power sources. From rovers exploring Mars to satellites orbiting Earth, spacecraft rely on advanced battery technology to survive the harsh conditions of space.

What kind of batteries does the Space Shuttle use?

The spacecraft is powered by 600 W photovoltaic arrays, which will store energy in EnerSys' ABSL™ lithium-ion batteries. These batteries consist of three 8S72P modules connected in parallel, providing over 540 Ah of capacity. They are designed to perform various charge and discharge cycles throughout the mission's duration.

Which spacecraft uses lithium-ion batteries?

The James Webb Space Telescope (JWST) uses lithium-ion batteries to store energy during orbital maneuvers. The Osiris-Rex spacecraft, which collected samples from asteroid Bennu, used lithium-ion batteries to power critical instruments.



Energy storage batteries used in space stations

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