

ENERGY SOLAR

Flexible Solar Wings - High Efficiency Solar Power Solutions

Explore our innovative Flexible Solar Wings, designed for modern space exploration and satellite networking. Featuring two designs, Stacked and Reel-type, these solar wings offer lightweight, high-stored power, and modular capabilities. Ideal for high-efficiency satellite networking, deep space exploration, and lunar bases.

Product Introduction

Stacked Flexible Solar Wings:

Our **Stacked Flexible Solar Wings** consist of rigid battery circuits, flexible substrates, flexible hinges, advanced deployment mechanisms, and pressing/releasing mechanisms. Perfect for next-gen flat-panel satellites, these wings are ideal for large-scale networking, mass production, and network deployment.

- **High Storage:** Achieves a volume-to-power ratio 8 times higher than traditional rigid wings.
- **Lightweight:** Significantly lighter than traditional rigid wings.
- **Modularity:** Modular component design for easy mass production.

Reel-type Flexible Solar Wings:

The Reel-type Flexible Solar Wings consist of flexible battery circuits, flexible blankets, advanced unfolding mechanisms, and compression/release mechanisms. Perfect for scientific experiments, deep space exploration, and other spacecraft, these wings offer:

- **High Efficiency:** Optimal energy output with minimal weight.
- **Compact Size:** Small and lightweight design, ideal for space-saving applications.
- **Advanced Mechanisms:** Incorporates new deployment technologies for reliable performance.

Product Image

Product Features

- **Lightweight:** Significantly lighter than traditional solar wings.
- **High Storage:** 8 times more efficient volume-to-power ratio.
- **Modularity:** Easy-to-expand modular components, suitable for a variety of applications. Learn more about our [advanced rigid solar wing technologies](#).

Technical Parameters

Typical battery array area (m²)	Stacked flexible solar wings	Reel-type flexible solar wing
Weight specific power (W/kg)	>10	>5
Expand fundamental frequency (Hz)	18	40
Typical battery array area (m²)	100	220
Volume specific power (kW/m³)	>0.1	0.05

Application Scenarios

- **Stacked Flexible Solar Wings:** Ideal for efficient networking satellites and large-scale constellation construction.
- **Reel-type Flexible Solar Wings:** Perfect for scientific experiments, deep space exploration, and lunar bases.

Related Products

Looking for more solar solutions? Check out our [solar panel systems](#) and [energy storage units](#).