

Abstract Flexible photovoltaic (PV) support structure offers benefits such as low construction costs, large span length, high clearance, and high adaptability to complex terrains. However, due to the high ...

The flexible photovoltaic support system can realize the large span of the suspension cable structure, reducing the amount of support steel and the number of support foundations, and greatly lowering ...

In order to reduce the construction costs of the flexible photovoltaic support, a mathematical model for optimizing the initial structure's morphology is established according to the ...

Abstract The flexible support photovoltaic module structure system has advantages such as large span, fast construction speed, and suitability for complex environments. However, this kind ...

The invention relates to the technical field of photovoltaic supports, in particular to a flexible photovoltaic support structure.

This study develops an efficient fluid-structure interaction (FSI) analysis framework to investigate the wind-induced vibration response of flexible photovoltaic support structures.

Flexible photovoltaic (PV) support structure offers benefits such as low construction costs, large span length, high clearance, and high adaptability to complex terrains.

In this study, a universal mathematical model is established for the power generation by photovoltaic (PV) modules in which both the sea conditions ...

In this study, a series of two-way fluid-structure interaction (FSI) coupling numerical simulations are conducted to investigate the effect of ground anchors on the wind-induced vibration response of ...

In this paper, a new type of cable-truss support photovoltaic module structure system with excellent wind resistance is proposed. Firstly, the superiority of the new system is proved by the aspects of static ...

This study provides valuable insights for the mechanical analysis and structural design of flexible PV mounting systems, offering a robust reference for future engineering applications.

To improve the span and stiffness and widen the application scene of the flexible photovoltaic support system, a new type of three-dimensional cable-truss flexible photovoltaic support system is proposed ...



# Photovoltaic flexible support anchor cable construction

The results show that the flexible cable supported photovoltaic undergoes vertical and torsional coupled vibration under strong wind. The maximum displacement response occurs at wind suction and the ...

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