

The wind-induced vibration response of flexible PV support structure under different cases was studied by using aeroelastic model for wind tunnel test, including different tilt angles of PV ...

In the design of the flexible photovoltaic support, the stability, bearing capacity, and wind-resistant performance can be improved by optimizing the initial morphology of the ...

This research focused on the safety and critical wind speed of flexible PV mounting structures, as well as the calculation of wind-vibration coefficients, and proposed reinforcement strategies for wind-induced ...

The distribution of wind pressure coefficients on the surface of PV panels with different inclination angles at different spacing ratios was investigated.

When designing flexible photovoltaic supports, the requirements of structural stability, weather resistance, lightweight and strength must be comprehensively considered to ensure the long-term reliability ...

This work contributes to the wind-induced failure study of large-span flexible PV support array, which can provide theoretical guidance for the wind resistance design of such flexible PV structures.

How to calculate the appropriate wind load value for the flexible solar photovoltaic bracket has become a very critical problem.

In the realm of wind resistance design for PV arrays mounted on building roofs, Li et al. (2019a) and He et al. (2020) undertook investigations utilizing a CFD model to explore ...

In summary, the study on the critical wind speed of flexible photovoltaic brackets uses the mid-span deflection limit at the wind-resistant cables under cooling conditions as the standard, set at 1/100 of the span length.

In this study, a 45 m span flexible PV support structure with 3 spans and 12 rows was designed. The wind loads on PV panels were obtained by wind tunnel tests on a rigid model and the wind-induced ...

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