Photovoltaic flexible support collapse

The vertical support system is composed of steel columns and inter-column supports, and its role is to withstand and transfer the vertical force of the new flexible photovoltaic support system.

In this paper, we mainly consider the parametric analysis of the disturbance of the flexible photovoltaic (PV) support structure under two kinds of wind loads, namely, mean ...

The influence of critical parameters, such as panel inclination angle, wind direction angle, and template gap, on the wind-induced response of the flexible PV support was compared and ...

This paper presents a systematic work around the wind-induced response and instability characteristics of the large-span flexible PV support array, the results are of significance for the ...

He et al. (2021) investigated the mechanical properties of a new flexible PV modules support structure with a span of 30 meters, and discussed the effects of row spacing, inclination angle, initial cable ...

In this study, the finite element model of the new system is established first, and the accuracy of the finite element simulation is verified by the full-scale model test.

Flexible photovoltaic (PV) support systems have low stiffness, low damping, and may suffer from aerodynamic instability, especially fluttering, under wind loads. Reliable structural modal parameters ...

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 ...

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