

Most existing aeroelastic wind tunnel tests on flexible photovoltaic (PV) support structures focus on single support forms, lacking comparisons of wind-induced vibration responses between ...

tilt angle of photovoltaic modules is directly related to the selection of wind load values for photovoltaic modules. To clarify the relationship between the tilt angle of the photovoltaic modules and their wind ...

Based on the theory of flutter derivatives successfully used in the field of bridge engineering, the critical flutter wind velocities of the flexible PV support structures were carefully ...

This paper investigates the wind load characteristics of large-span flexible-support PV arrays with different tilt angles through wind tunnel pressure measurements.

Photovoltaic (PV) system is an essential part in renewable energy development, which exhibits huge market demand. In comparison with traditional rigid-supported photovoltaic (PV) ...

Therefore, an innovative aerodynamic method involving a spoiler is proposed to mitigate the excessive vibration of a cable-supported PV array under wind action. An aeroelastic wind-tunnel ...

Cai17 conducted wind tunnel tests on array photovoltaic supports under different wind directions and wind speeds, analyzing the vibration behaviors of supports across different rows.

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 ...

This study, set against the backdrop of the Huarong PV project by China Power Construction Group Guiyang Survey and Design Institute, employs a flexible PV rigid model to conduct wind tunnel ...

The results show that there are obvious interference effects between each row of the flexible PV support array. The second and third rows of PV modules on the windward side are prone ...

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