Wind resistance design of concrete photovoltaic support

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 ...

Research highlights Design Guidelines for Wind Resistant Support Systems of Ground Mounted Solar PV Arrays

The pressure field on the upper and lower surfaces of a photovoltaic (PV) module comprised of 24 individual PV panels was studied experimentally in a wind tunnel for four different wind directions.

This study involves the development of a MATLAB code to simulate the fluctuating wind load time series and the subsequent structural modeling in SAP2000 to evaluate the safety ...

In summary, this study provided a valuable reference for the wind resistance design of flexible PV support through an in-depth analysis of the safety, durability, and wind

The wind-induced vibration characteristics of the photovoltaic support system are investigated from a time-domain analysis perspective, offering valuable insights for the wind resistance design of array ...

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 ...

This paper proposes a novel approach to integrate photovoltaic (PV) panel into a precast concrete (PC) facade renamed PVPC facade, as a special application for prefabricated high-rising buildings. How to ...

When it comes to PV systems in windy areas, it is crucial to evaluate the different design solutions available to ensure strength and durability. Each approach offers specific advantages and ...

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