Gust coefficient of photovoltaic support

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 ...

With the growth of the solar photovoltaic industry, cable-supported photovoltaic structures (CSPSs) have become a research focus. Gust response factor (GRF) quantifies the amplification of ...

Therefore, this study looks into the wind effects of the long-span cable-suspended photovoltaic structure and attempts to provide reasonable recommendations for key parameters ...

According to the NB/T 10115 [4] standard, the key parameters to determine wind loads on PV panels are the gust factor and pressure coefficient, which are relevant to tilt ...

The wind vibration coefficients in different zones under the wind pressure or wind suction are mostly between 2.0 and 2.15. Compared with the experimental results, the current Chinese ...

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 guide covers wind load calculations for both rooftop-mounted PV systems and ground-mounted solar arrays, explaining the differences between ASCE 7-16 and ASCE 7-22, the applicable sections, ...

What is the wind vibration coefficient of flexible PV support structure? The wind vibration coefficients in different zones under the wind pressure or wind suction are mostly between 2.0 and 2.15.

Numerical simulations of wind-induced vibration and equivalent static analysis were conducted to yield gust loading factors for the PV array.

Formulas were fitted based on the results of large-scale parameter analysis to estimate the standard deviations

of wind-induced dynamic responses using the standard deviations of quasi-static...

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