Photovoltaic flexible support construction method

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 ...

In this paper, aiming to provide a contribution to this gap, a PVSP steel support structure and its key design parameters, calculation method, and finite element analysis (FEA) detailed with a ...

The wind-induced response and vibration modes of the flexible photovoltaic (PV) modules support structures with different parameters were investigated by using wind tunnel based on elastic ...

Therefore, flexible PV mounting systems have been developed. These flexible PV supports, characterized by their heightened sensitivity to wind loading, necessitate a thorough analysis of their ...

To better understand the structural behavior and prevent potential failure, this study presents a simplified analytical model for the design of double-layer flexible cable photovoltaic ...

Fixed supports (rigid structures) and flexible supports (tensioned cable systems) are two main methods used in constructing photovoltaic power plants, and their construction technology has ...

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

Since 2000, flexible support photovoltaic module structure systems have been widely used because of their advantages such as short construction period, large span, good economic ...

In this paper, the mechanical behavior of a single-cable structure is introduced, and the simplified analytical formulations for internal force and displacement are deduced based on the ...

The invention has reasonable structural design, utilizes the connected longitudinal flexible cables and transverse flexible cables to form a prestress self-balancing structure with high rigidity...

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