

Title: Wind turbine wind deflector structure

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The objective of the present work is to increase the effectiveness of the wind turbine explicitly without changing the design parameters of the existing wind turbines.

Fatahian et al. (2022b) reported that a strong vortical structure was formed downstream of a circular cylinder deflector as the flow separated from the deflector, thus creating flow instabilities around the ...

In order to improve the heat dissipation capacity of the wind turbine, in this paper, a 3MW permanent magnet wind turbine is taken as the research object, and f

This paper takes a kind of nautilus isometric spiral wind turbine as prototype, and by analysing the structural and aerodynamic performance of this wind turbine, three wind deflectors with different ...

The influence of the deflector on the wind turbine is studied in different layouts.

First-hand experience with aerodynamics and real-world measurements in boundary layer wind tunnels proves that deflected systems have much lower pressure coefficients and ...

This paper reviews various designs, experiments, and CFD simulations of wind deflectors reported to date. Optimization techniques for VAWTs incorporating wind deflectors are discussed in ...

The torque characteristic and wake characteristic of the wind turbine are analysed by simulation method and the influence of three different structures of wind deflector on the performance ...

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