European Solar and Energy Storage Solutions

Wind-shaking generator

Overview

What is a Vortex Bladeless wind turbine?

Vortex Bladeless is designed to solve the problems of traditional wind turbines, such as operational costs, noise, and impacts on birds. Owing to its simple shape and light weight of 15 kg, its material costs are reduced.

Is wind power a promising technology?

It’s a promising technology still in its infancy. When people think of wind power, most imagine rows of giant turbines stretching across wide expanses of land. David Yáñez envisions something else entirely. Yáñez is co-founder of Vortex Bladeless, a Spanish startup.

Who invented Vortex Bladeless generator?

Vortex Bladeless Ltd. was founded in 2012 by David Yáñez and Raul Martín. A video inspired them to develop the generator. It was a video of the Tacoma Narrows Bridge in the USA that collapsed in 1940, showing how the bridge’s frequency resonated with that of the vortices caused by high-speed winds resulting in its collapse.

Do vortex generators reduce air separation?

Vortex generators (VGs) can effectively delay air separation occurring on the inboard-section of the wind turbine blade. Many scholars have investigated the principle of VGs in terms of flow control and validated their ability to enhance efficiency.

Do VGS improve wind turbine power output?

Studies have proven that VGs can effectively delay stall angle, increase CL.max and L / D, and lower the LER sensitivity of airfoils. VGs can markedly enhance the AEP or power output of wind turbines as per wind site experiments and CFD analyses.

Could a silent wind turbine make a difference?

NIMBYism is one of biggest threats to the transition to renewable energy. So silent, small designs could make a big difference to installation rates. Nicknamed 'the Skybrator' by the internet, a bladeless wind turbine has been designed to generate energy from its vibrations alone.

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Shaking Up Conventional Wind Technology: Vortex ...

Shaking Up Conventional Wind Technology: Vortex Bladeless CTO on Rotorless Turbines Home; EEPower Day 2024; Vortex Bladeless; David Yáñez Co-Founder, President, and Resonant Wind Generators Using ...

Shaking table tests of offshore wind turbine systems with a ...

Seismic liquefaction threaten the safety of suction bucket foundations supported offshore wind turbines. The shaking table tests for sandy seabed - suction bucket - offshore wind turbine ...

Seismic responses of two bucket foundations for offshore wind turbines

Sand liquefaction under seismic load causes severe failure of bucket foundations for offshore wind turbines. This study conducted shaking table tests for two different types of ...

Shaking table test on vibration control effects of a ...

On the contrary, the shaking table test studies

on seismic performance of wind turbine towers using TMDs are relatively scarce. One of the most famous shaking table tests of a full-scale wind turbine (65-kW rated ...

Bladeless wind turbine generates electricity by ...

Bladeless wind turbine generates electricity by vibrating with air movements. It's a promising technology still in its infancy. by YCC Team May 19, 2021. (Photo: Courtesy of Vortex Bladeless) When people think of wind ...

A wind turbine without blades? , Vortex wind turbines

A pole-shaped wind turbine, Vortex Bladeless, generates power by shaking. Vortex Bladeless has designed a technology that is an alternative and innovative way to turn wind energy into power

Wobbling in the wind: a bladeless alternative to turbines

Madrid-based SME Vortex Bladeless, which led the project, is now targeting the local distributed energy market, enabling renewable power to be harnessed close to the point of consumption using its compact bladeless wind-powered ...

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