

What is a lightweight ring generator?

Lightweight Ring Generators can be used for several applications. A highlight is the construction and electromagnetic layout of the generator for gearless wind turbines >10 MW. For the proof of concept we set up a test bench to test our scaled demonstrator generator and its control. Improving the lifetime and reducing maintenance are

How to reduce the weight of a generator nacelle?

One of the challenges for high power wind applications is to reduce the weight of the nacelle related to constructional issues. One option is to increase the diameter of the generator and the pole-pairs. So a high torque by low speed can be reached. To enlarge maintenance intervals the generator was segmented.

How many kW generators can we test in a test bench?

To enlarge maintenance intervals the generator was segmented. We can test up to 250kW machines and generators in our test bench. The clamping plate has a 3 m x 6 m surface where we can set up several test and measurement equipment.

How to increase the torque of a generator?

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Wind turbine slip rings are essential components in the efficient operation of wind turbines, facilitating seamless power transmission and data communication between the stationary and rotating parts of the system. With ...

More than ever, the generation of energy from renewable sources has become one of the most critical and challenging areas of human activity. This is the result of a number ...

ABB Motors and Generators | Wind power generators 3 Proven ABB slip ring design: Specialized production know-how - from leading slip ring manufacturers Reliable construction through joint ...

A guide ring placed at 20 % increase the efficiency with 1 % at peak power coefficient rotor TSR for 1 m/s free stream velocity. ... Horizontal Axis Wind Turbine; Guide ...

The purpose of the guide ring is to direct the axial free stream velocity onto the rotor. Simulations were conducted at 0.5 m/s and 1 m/s free stream velocities. Water was used as the fluid for...

Slip rings for wind generators. Mersen has a long experience about slip ring assemblies for wind generators

Generator wind guide ring

application and has already equipped thousands of OEMs generators. We currently also repair ring sets and propose retrofit. ...

ABB's wind power generators are designed to fit most DF turbines of today. The Doubly-fed (DF) generator concept (Cascade drive) The DF generator is a wound rotor asynchronous machine, ...

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