

What is the topology of wind turbine generation system?

The topology is as shown in Fig. 1. The whole wind turbine generation system includes wind wheel, speed increasing gearbox, WINDRIVE speed regulating machine and synchronous generator. WINDRIVE consists of hydraulic torque converter and planetary gearbox.

What is double rotor double machine (drdm)?

In order to solve the problems mentioned above, a new type of the double rotor double machine (DRDM) with high efficiency, reliability and stability has been proposed. The double rotor speed regulating machine (DRSRM) is the key component of the DRDM. In this paper, the topology of the DRDM wind turbine generation system will be given in Section 2.

What is WinDrive wind turbine?

The original speed regulating wind turbine called WINDRIVE is proposed by DEWIND company. The topology is as shown in Fig. 1. The whole wind turbine generation system includes wind wheel, speed increasing gearbox, WINDRIVE speed regulating machine and synchronous generator.

What are the components of wind turbine generation system?

The whole wind turbine generation system includes wind wheel, speed increasing gearbox, WINDRIVE speed regulating machine and synchronous generator. WINDRIVE consists of hydraulic torque converter and planetary gearbox. The hydraulic torque converter is directly coupled with the synchronous generator.

Current research on double-rotor wind turbines (DRWT) primarily focuses on aerodynamic performance and wake characteristics. Addressing the specific control challenges during operation, this study first establishes a ...

The key challenge of declining torque density in magnetless machines, especially for large-scale wind turbines, is addressed by exploring dual port (double stator or double rotor) machines. The emergence ...

This study evaluates the performance of a counter-rotating dual rotor wind turbine (CR-DRWT) with 2 m² rotor radius equipped with a double rotational armature in an open jet wind tunnel. With only on...

Laboratoire Génie Electrique et Energies Renouvelables (LGEER), Chlef, Algeria Abstract. In this work, we try to improve the performance of the wind turbine by using a dual rotor wind system; this yield ...

Keywords: Wind power generation, wind bridge technology, power generation efficiency. Abstract: In order to make full use of the valley winds in the western region and the ocean winds in the southeast ...

However, with the large-scale offshore wind turbine capacity and the improvement of the proportion of wind power, its disadvantages of weak impact load resistance, weak grid friendliness, large volume and ...

Participants Aaron Rosenberg Behnam Moghadassian Suganthi Selvaraj Anupam Sharma Dual-Rotor Wind

Turbine Horizontal axis wind turbines suffer from aerodynamic inefficiencies in the blade root ...

The double rotor speed-regulating wind power generation system has the ability of speed regulation and power generation at the same time in a certain period of time and reduces the capacity of the ...

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