

Can air deflector reduce stator winding temperature rise?

The above analysis proves the potential and effectiveness of the air deflector in reducing the stator winding temperature rise. In addition, there is no contact between the proposed structure and the primary components of the motor. Therefore, the electromagnetic performance of the motor is not affected.

Does air deflector installation affect stator winding hotspot temperature rise?

In the following, the impacts of air deflector installation on the stator winding hotspot temperature rise are analyzed by comparing the global temperature characteristics of the motor without and with the air deflector.

How to reduce temperature rise in a stator winding?

To date, there has been much technical literature on stator winding temperature rise suppression. The proposed methods can be broadly summarized into three categories: novel windings, introducing heat dissipation reinforcement structures in slots, and enhancing cooling of the end winding.

Does a stator winding change the temperature distribution?

Both the temperature distribution of the axial section as well as the stator winding show that the stator end winding temperature at the air outlet side drops significantly after installing the air deflector, and the overall temperature distribution of the stator winding is improved.

Where are high voltage stator windings made?

in Beloeil, Quebec, Canada) where the high voltage stator windings continue to be manufactured. The insulation systems have been maintained, only the names have changed to HV600 (High Voltage) and LV400 (Low Voltage). The design, manufacture and installation of the stator wi

What is the minimum clearance between air deflector & stator end winding?

Moreover, to ensure that the designed air deflector can be used in practice, a clearance of at least 5 mm is maintained between the air deflector and the stator end winding (i.e., the maximum value H_r can take is $H - 5$). In addition, the thickness of the air deflector is 3 mm. Fig. 7. Position and geometric parameters for improvement study.

This paper presents a stator winding faults detection in induction generator based wind turbines by using artificial neural network (ANN). Stator winding faults of induction ...

To effectively limit the hotspot temperature rise of the stator winding, a novel ventilation cooling structure, the air deflector, is proposed. Fig. 6 illustrates the two kinds of air ...

This paper presents a stator winding faults detection in induction generator based wind turbines by using

artificial neural network (ANN). Stator winding faults of induction generators are the ...

Abstract In order to meet the higher requirements (i.e. large scale, high reliability and direct drive) of generators used for offshore wind turbine, a novel direct drive module dual ...

Generators for Wind Turbine Applications ... to install the sensors, as well as lost revenue due to power outages associated with equipment installation and mainte- ... in the stator line current ...

In the following, the impacts of air deflector installation on the stator winding hotspot temperature rise are analyzed by comparing the global temperature characteristics of ...

After permanent blocking installation, the field was moved to the assembly area for turbine-end retaining ring installation. Following this and with final electrical testing ...

Installation of wind deflectors for flow augmentation helps to reduce the negative torque generated by the returning blades as well as enhance the positive torque by creating a ...

View the video to see how you can minimize costly outages by having our expert technicians perform your next full stator rewind. During a planned customer outage MD& A completed a generator stator and field ...

Shall the stator winding be tight in the slots ?-Thermoplastic and Thermoset stator winding - Semi-conductive side-packing and its installation - "Twintone ®" winding doesn't need separate side ...

The invention discloses a method for repairing an anti-corona layer of a generator stator bar. In order to prevent the end part of the stator bar of the generator, the ventilation notch and other ...

stator windings to provide the required "Voltage sense" information. With the SX (Self excited) type AVR, the excitation power supply is also taken directly from the stator terminals. Various wiring ...

For the complex status of fluid flow in stator radial ventilation ducts of large turbo-generator, the temperature distribution of stator is dramatically affected by the flow status of cooling medium ...

A self-excited induction generator (SEIG) with a parallel combination of star and delta stator windings is designed for wind-driven generator applications. This winding design ...

The wind generator with a modular stator presented in this paper has characteristics not yet evaluated, because despite having dimensions for a wind turbine for urban applications, it has a large ...



**Generator
installation**

stator

wind

deflector

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