

Guyana Wind Turbine Distribution Box Standards

Article Overview

Wind turbine distribution boxes in Guyana must comply with high-voltage/low-voltage prefabricated substation standards, including GB/T17467-2020, and be suitable for harsh environmental conditions.

Overview

In Guyana, wind turbine distribution boxes, often referred to as box-type substations, are designed to step up the electricity generated by wind turbines (typically 0.69 kV) to higher transmission voltages (commonly 35 kV) for integration into the national grid . These prefabricated substations are engineered to meet both national and international standards and are intended for use in wind farms along the coastline and other suitable sites identified by the Guyana Energy Agency .

Technical Specifications

- Voltage Ratings: The box transformer steps up from 0.69 kV to 35 kV, with high-voltage switchgear rated at 40.5 kV .
- Switchgear:
 - High-voltage: XGN-40.5 box-type fixed high-voltage switch cabinet with AC load switch-fuse combination devices for transformer protection.
 - Low-voltage: Cabinet structure with lighting and control power for the box transformer....



Article Content

Feb 22, 2026

GNBS Standards Catalogue 2017-2020 by Guyana National Bureau

This technical specification provides guidance for the full-scale structural testing of wind turbine blades and for the interpretation or

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Wind Turbines | Encyclopedia MDPI

Wind turbines (WTs) are large devices utilized to convert the wind's kinetic energy into electricity. There are several

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Guyana's potential for wind energy has drawn some attention as a developing market opportunity. This South

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To advance the design of a multimegawatt vertical-axis wind turbine (VAWT), application-specific airfoils need to be

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Junction Boxes in Wind Turbine Power Distribution

Technical Specifications and Industry Standards Wind turbine junction boxes must comply with rigorous international

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IEC 61400-1:2019

This document is concerned with all subsystems of wind turbines such as control and protection functions, internal electrical systems,

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AMT Handbook

Oil grades used in some turbine engines normally contain thermal and oxidation preventives, load-carrying additives, and substances

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STANDARD REQUIREMENTS FOR WINDPARK DEVELOPMENT

The consultancy has resulted in clear guidelines and criteria for assisting project developers and all stakeholders (including

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Design and extreme structural analysis of wind turbine blades: Beam

Wind turbine blades are now slender and flexible, presenting large deformations even at service load levels . Finite

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How Do Those Huge Windmills Work? | Mr. Electric

Those towering wind turbines dotting the landscape are more than just scenic silhouettes — they're sophisticated

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What is Wind Energy?

We prepared a kid-friendly guide with all you need to know about what is wind energy, how

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Why Do Wind Turbines Have 3 Blades Instead of 2 or 5?

Why are Three Blades Considered Optimal for Wind Turbines, Rather than Two, Four, or More? Why 3

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Guyana National Bureau of Standards

The Guyana National Bureau of Standard (GNBS) manages the development and publication of standards in Guyana. To meet the

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Learn about offshore wind transmission and how HVDC cables, subsea umbilicals, and inter array cables transport

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ELECTRICITY SECTOR (TECHNICAL STANDARDS)

(1) The National Electrical Code®, or NEC®, shall be the standard governing the construction, installation, maintenance, repair,

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Wind energy resource assessment and wind turbine selection ...

The power produced by a wind turbine varies considerably depending on the distribution of wind speed, even if the

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Sub-Sector/Technology Option: Technology Application

Technology Application: Standalone wind farms to service Urban centers and supply the national grid.

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Wind Turbines: the Bigger, the Better

Since the early 2000s, wind turbines have grown in size—in both height and blade lengths—and generate

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I trapped 41 wild hogs – a new personal record – and we even wrestled alligators!
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Junction Boxes in Wind Turbine Power Distribution

This comprehensive guide explores the technical requirements, design considerations, and best practices for

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Homepage []

We are a world leader in engineering and drilling activities and in the development of major projects, in the

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IEC 61400

IEC 61400 is a set of design requirements made to ensure that wind turbines are appropriately engineered against damage from

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DNV-ST-0076 Design of electrical installations for wind turbines

This standard (ST) provides principles and technical requirements for design and construction of electrical installations regarding

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Wind – Guyana Energy Agency

Home Wind Wind Wind Energy A wind farm with an installed capacity of about 10 MW to supply electricity to the local grid is being

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GNBS Standards Catalogue 2017-2020 by Guyana National Bureau

This standard is concerned with all subsystems of wind turbines such as control and protection mechanism internal electrical

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Wind Turbine Height: A Comprehensive Guide to Elevation,

Ultimately, the decision about wind turbine height should be guided by a holistic assessment of wind resources,

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Abbreviations:

The Minimum Technical Requirements Code provides detailed and specific technical specifications and requirements that are also

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How a Wind Turbine Works

How a Wind Turbine Works A wind turbine turns wind energy into electricity using the aerodynamic force

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IEC Turbulence Modeling

Standard 61400-1 of the International Electrotechnical Commission forms the basis of Windographer's treatment of

Sep 24, 2025

Globally interconnected solar-wind system addresses future electricity ...

A globally interconnected solar-wind power system can meet future electricity demand while lowering costs,

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Energiewandlung | BWE e.V.

Windenergie ist die kinetische Energie bewegter Luft (von griechisch kinesis = Bewegung). Bei der Umwandlung in elektrische

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.iiss.co.za>

Email: sales@iiss.co.za

Phone: +27 63 174 2895

Address: Unit 8, Innovation Park, 15 Rivonia Road, Sandton, Johannesburg,
2196, South Africa

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