IEC TS 61400-26-4

Edition 1.0 2024-08

TECHNICAL SPECIFICATION

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Wind energy generation systems –
Part 26-4: Reliability for wind energy generation systems

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 27.180

ISBN 978-2-8322-9458-1

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WIND ENERGY GENERATION SYSTEMS –

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FOREWORD

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IEC TS 61400-26-4 has been prepared by IEC technical committee 88: Wind energy generation systems. It is a Technical Specification.

Throughout this document, mandatory information categories as defined in IEC 61400-26-1 are written in capital letters (e.g. FULL PERFORMANCE, OUT OF ENVIRONMENTAL SPECIFICATION).

The text of this Technical Specification is based on the following documents:

Draft	Report on voting
88/954/DTS	88/1024/RVDTS

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Technical Specification is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 61400 series, published under the general title *Wind energy generation systems*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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WIND ENERGY GENERATION SYSTEMS –

Part 26-4: Reliability for wind energy generation systems

1 Scope

This part of IEC 61400, which is a Technical Specification, specifies terms and information categories for identification and reporting of reliability metrics. The definitions are applicable to key components, any number of wind turbines, fleets of wind turbine types, a wind power station or a portfolio of wind power stations. The wind power station is made up of all WTGSs (Wind Turbine Generator Systems), functional services and balance of plant elements as seen from the point of common coupling.

This document provides guidelines regarding reliability methodologies with informative annexes regarding use.

It expands on the information model in IEC 61400-26-1, recognizing that availability and reliability are interrelated.

It does not assign specific reliability specifications, constraints or targets but rather provides standardized means of categorizing and prioritizing data and illustrates the use of the model and metrics in informative annexes.

It does not specify the method of information acquisition or specific use. Beyond that, it is not the intention of this document to specify exactly how to calculate other undefined or performance-based reliability metrics.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61400-26-1, *Wind energy generation systems – Part 26-1: Availability for wind energy generation systems*

IEC 60050-192, *International Electrotechnical Vocabulary (IEV) – Part 192: Dependability*

IEC 61703, *Mathematical expressions for reliability, availability, maintainability and maintenance support terms*