

# SLOVENSKI STANDARD

## SIST EN IEC 61400-12-1:2022

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**SIST EN 61400-12-1:2017/AC:2020**

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Wind energy generation systems - Part 12-1: Power performance measurement of electricity producing wind turbines (IEC 61400-12-1:2022)

Windenergieanlagen - Teil 12-1: Messung des Leistungsverhaltens von Windenergieanlagen (IEC 61400-12-1:2022)

Systèmes de génération d'énergie éolienne - Partie 12-1: Mesures de performance de puissance des éoliennes de production d'électricité (IEC 61400-12-1:2022)

**Ta slovenski standard je istoveten z: EN IEC 61400-12-1:2022**

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Wind energy generation systems - Part 12-1: Power  
performance measurements of electricity producing wind  
turbines  
(IEC 61400-12-1:2022)

Systèmes de génération d'énergie éolienne - Partie 12-1:  
Mesurages de performance de puissance des éoliennes de  
production d'électricité  
(IEC 61400-12-1:2022)

Windenergieanlagen - Teil 12-1: Messung des  
Leistungsverhaltens von Windenergieanlagen  
(IEC 61400-12-1:2022)

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Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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**EN IEC 61400-12-1:2022 (E)****European foreword**

The text of document 88/822/CDV, future edition 3 of IEC 61400-12-1, prepared by IEC/TC 88 "Wind energy generation systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61400-12-1:2022.

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**Endorsement notice**  
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The text of the International Standard IEC 61400-12-1:2022 was approved by CENELEC as a European Standard without any modification.

<https://standards.iteh.ai/catalog/standards/sist/3b48159f-d637-48f7-8b32-eb098da7553c/sist-en-iec-61400-12-1-2022>

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60688	-	Electrical measuring transducers for converting AC and DC electrical quantities to analogue or digital signals	EN 60688	-
IEC 61400-2	-	Wind turbines - Part 2: Small wind turbines	EN 61400-2	-
IEC 61400-12-2	-	Wind energy generation systems - Part 12-2: Power performance of electricity producing wind turbines based on nacelle anemometry	EN IEC 61400-12-2	-
IEC 61400-12-3	-	Wind energy generation systems - Part 12-3: Power performance - Measurement based site calibration	EN IEC 61400-12-3	-
IEC 61400-12-5	-	Wind energy generation systems - Part 12-5: Power performance - Assessment of obstacles and terrain	EN IEC 61400-12-5	-
IEC 61400-50-1	-	Wind energy generation systems - Part 50-1: Wind Measurement - Application of Meteorological Mast, Nacelle and Spinner Mounted Instruments	EN IEC 61400-50-1 <sup>1</sup>	-
IEC 61400-50-2	-	Wind energy generation systems - Part 50-2: Wind measurement - Application of ground-mounted remote sensing technology	EN IEC 61400-50-2	-
IEC 61869-1	-	Instrument transformers - Part 1: General requirements	EN 61869-1	-
IEC 61869-2	-	Instrument transformers - Part 2: Additional requirements for current transformers	EN 61869-2	-
IEC 61869-3	-	Instrument transformers - Part 3: Additional requirements for inductive voltage transformers	EN 61869-3	-

<sup>1</sup> Under preparation. Stage at the time of publication: FprEN IEC 61400-50-1:2022.

**EN IEC 61400-12-1:2022 (E)**

ISO 2533	-	Standard Atmosphere	-	-
ISO/IEC Guide 98-3 2008		Uncertainty of measurement - Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)	-	-

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Edition 3.0 2022-09

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



**Wind energy generation systems –  
Part 12-1: Power performance measurements of electricity producing wind  
turbines**

**Systèmes de génération d'énergie éolienne –  
Partie 12-1: Mesurages de performance de puissance des éoliennes de  
production d'électricité**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**WIND ENERGY GENERATION SYSTEMS –****Part 12-1: Power performance measurements  
of electricity producing wind turbines**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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IEC 61400-12-1 has been prepared by IEC technical committee 88: Wind energy generation systems. It is an International Standard.

This third edition of IEC 61400-12-1 is part of a structural revision that cancels and replaces the performance standards IEC 61400-12-1:2017 and IEC 61400-12-2:2013. The structural revision contains no technical changes with respect to IEC 61400-12-1:2017 and IEC 61400-12-2:2013, but the parts that relate to wind measurements, measurement of site calibration and assessment of obstacle and terrain have been extracted into separate standards.

The purpose of the re-structure was to allow the future management and revision of the power performance standards to be carried out more efficiently in terms of time and cost and to provide a more logical division of the wind measurement requirements into a series of separate standards which could be referred to by other use case standards in the IEC 61400 series and subsequently maintained and developed by appropriate experts.

The text of this International Standard is based on the following documents:

Draft	Report on voting
88/822/CDV	88/867/RVC

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 International Standard 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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

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- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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