SLOVENSKI STANDARD
SIST EN IEC 61400-27-1:2020

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SIST EN 61400-27-1:2015

Sistemi za proizvodnjo energije na veter - 27-1. del: Električni simulacijski modeli - Splošni modeli (IEC 61400-27-1:2020)

Wind energy generation systems - Part 27-1: Electrical simulation models - Generic models (IEC 61400-27-1:2020)

Windenergieanlagen - Teil 27-1: Elektrische Simulationsmodelle - Generische Modelle (IEC 61400-27-1:2020)

Systèmes de génération d'énergie éolienne - Partie 27-1: Modèles de simulation électrique - Modèles génériques (IEC 61400-27-1:2020)

Ta slovenski standard je istoveten z: **EN IEC 61400-27-1:2020**

ICS:

27.180	Vetrne elektrarne	Wind turbine energy systems

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EUROPEAN STANDARD
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Supersedes EN 61400-27-1:2015 and all of its amendments and corrigenda (if any)

English Version

Wind energy generation systems - Part 27-1: Electrical simulation models - Generic models (IEC 61400-27-1:2020)

Systèmes de génération d'énergie éolienne - Partie 27-1: Modèles de simulation électrique - Modèles génériques (IEC 61400-27-1:2020)

Windenergieanlagen - Teil 27-1: Elektrische Simulationsmodelle - Generische Modelle (IEC 61400-27-1:2020)

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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European foreword

The text of document 88/762/FDIS, future edition 2 of IEC 61400-27-1, prepared by IEC/TC 88 "Wind energy generation systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61400-27-1:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-06-03
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-09-03

This document supersedes EN 61400-27-1:2015 and all of its amendments and corrigenda (if any).

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The text of the International Standard IEC 61400-27-1:2020 was approved by CENELEC as a European Standard without any modification.

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.

Publication	Year	Title	EN/HD	Year
IEC 60050-415	1999	International Electrotechnical Vocabulary Part 415: Wind turbine generator systems	--	-
IEC 61970-301	-	Energy management system application program interface (EMS-API) - Part 301: Common information model (CIM) base	EN IEC 61970-301	-
IEC 61970-302	-	Energy management system application program interface (EMS-API) - Part 302: Common information model (CIM) dynamics	EN IEC 61970-302	-

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INTERNATIONAL STANDARD

Wind energy generation systems – Part 27-1: Electrical simulation models – Generic models

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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WIND ENERGY GENERATION SYSTEMS –

Part 27-1: Electrical simulation models – Generic models

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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International Standard IEC 61400-27-1 has been prepared by IEC technical committee 88: Wind energy generation systems.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

FDIS	Report on voting
88/762/FDIS	88/771/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This second edition cancels and replaces the first edition, published in 2015. This edition constitutes a technical revision and a restructure of the content into two parts. The new structure joins the models in part 27-1 and the validation procedures in part 27-2.

This edition includes the following significant technical changes with respect to the previous edition:

a) "Wind turbines" changed to "Generic models" because wind power plant models are also included, and the model validation is moved to IEC 61400-27-2;

b) specification of models for wind power plants including plant control, communication system model and aggregation procedure for power collection system in addition to the wind turbine models in the previous edition;

c) moving validation prodedures for wind turbine models from this edition to part 27-2;

d) a more detailed modular structure separating wind turbine control into pitch control and generator system control and extracting grid measurement modules from the control modules. Figures are revised accordingly;

e) inclusion of model for STATCOM;

f) inclusion of electrical components modules.

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

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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