



SLOVENSKI STANDARD
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Sistemi za proizvodnjo energije na veter - 1. del: Zahteve za načrtovanje (IEC 61400-1:2019)

Wind energy generation systems - Part 1: Design requirements (IEC 61400-1:2019)

Windenergieanlagen - Teil 1: Auslegungsanforderungen (IEC 61400-1:2019)

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Vetrne elektrarne

Wind turbine energy systems

SIST EN IEC 61400-1:2019

en

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EUROPEAN STANDARD

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Wind energy generation systems - Part 1: Design requirements (IEC 61400-1:2019)

Systèmes de génération d'énergie éolienne - Partie 1:
Exigences de conception
(IEC 61400-1:2019)

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(IEC 61400-1:2019)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 61400-1:2019 (E)**European foreword**

The text of document 88/696/FDIS, future edition 4 of IEC 61400-1, prepared by IEC/TC 88 "Wind energy generation systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61400-1:2019.

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) 2019-12-15
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-03-15

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The text of the International Standard IEC 61400-1:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60146 (series)	NOTE	Harmonized as EN 60146 (series)
IEC 60269 (series)	NOTE	Harmonized as EN 60269 (series)
IEC 60898 (series)	NOTE	Harmonized as EN 60898 (series)
IEC 61000-6-1	NOTE	Harmonized as EN IEC 61000-6-1
IEC 61000-6-4	NOTE	Harmonized as EN 61000-6-4
IEC 61310-1:2007	NOTE	Harmonized as EN 61310-1:2008 (not modified)
IEC 61310-2:2007	NOTE	Harmonized as EN 61310-2:2008 (not modified)
IEC 61400-2	NOTE	Harmonized as EN 61400-2
IEC 61400-3-1 ¹	NOTE	Harmonized as EN IEC 61400-3-1 ²
IEC 61400-6 ³	NOTE	Harmonized as EN IEC 61400-6 ⁴

¹ To be published. Stage at time of publication: IEC CDV 61400-3-1:2017

² To be published. Stage at time of publication: FprEN IEC 61400-3-1:2018

³ To be published. Stage at time of publication: IEC CDV 61400-6:2017

⁴ To be published. Stage at time of publication: pr EN IEC 61400-6:2017

IEC 61400-12-1	NOTE	Harmonized as EN 61400-12-1
IEC 61400-13	NOTE	Harmonized as EN 61400-13
IEC 61400-21	NOTE	Harmonized as EN 61400-21
IEC 61508 (series)	NOTE	Harmonized as EN 61508 (series)
IEC 61508-1:2010	NOTE	Harmonized as EN 61508-1:2010 (not modified)
IEC 61508-6	NOTE	Harmonized as EN 61508-6
IEC 62061:2005	NOTE	Harmonized as EN 62061:2005 (not modified)
IEC 62061:2005/AMD1:2012	NOTE	Harmonized as EN 62061:2005/A1:2013 (not modified)
IEC 62061:2005/AMD2:2015	NOTE	Harmonized as EN 62061:2005/A2:2015 (not modified)
IEC 62305-1	NOTE	Harmonized as EN 62305-1
ISO 12100:2010	NOTE	Harmonized as EN ISO 12100:2010 (not modified)
ISO 9001	NOTE	Harmonized as EN ISO 9001
ISO 13849-2	NOTE	Harmonized as EN ISO 13849-2

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EN IEC 61400-1:2019 (E)

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60034	series	Rotating electrical machines	-	series
IEC 60038	-	IEC standard voltages	EN 60038	-
IEC 60071-1	-	Insulation co-ordination - Part 1: Definitions, principles and rules	EN 60071-1	-
IEC 60071-2	-	Insulation co-ordination - Part 2: Application guidelines	EN IEC 60071-2	-
IEC 60076	series	Power transformers	EN 60076	series
IEC 60204-1	-	Safety of machinery - Electrical equipment of machines - Part 1: General requirements	EN 60204-1	-
IEC 60204-11	2000	Safety of machinery - Electrical equipment of machines - Part 11: Requirements for HV equipment for voltages above 1 000 V a.c. or 1 500 V d.c. and not exceeding 36 kV	EN 60204-11	2000
-	-		+ corrigendum Feb. 2010	
IEC 60364	series	Low-voltage electrical installations	HD 60364	series
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)		-
IEC 60664-1	-	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	-
IEC 60664-3	-	Insulation coordination for equipment within low-voltage systems - Part 3: Use of coating, potting or moulding for protection against pollution	EN 60664-3	-
IEC 60721	series	Classification of environmental conditions -	EN 60721	series
IEC 61000-6-2	-	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments	EN IEC 61000-6-2	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61400-3	-	Wind turbines - Part 3: Design requirements for offshore wind turbines	EN 61400-3	-
IEC 61400-4	-	Wind turbines - Part 4: Design requirements for wind turbine gearboxes	EN 61400-4	-
IEC 61400-24	-	Wind turbines - Part 24: Lightning protection	EN 61400-24	-
IEC 61439	series	Low-voltage switchgear and controlgear assemblies	EN 61439	series
IEC 61800-4	-	Adjustable speed electrical power drive systems - Part 4: General requirements - Rating specifications for a.c. power drive systems above 1 000 V a.c. and not exceeding 35 kV	EN 61800-4	-
IEC 61800-5-1	-	Adjustable speed electrical power drive systems - Part 5-1: Safety requirements - Electrical, thermal and energy	EN 61800-5-1	-
IEC 62271	series	High-voltage switchgear and controlgear	EN 62271	series
IEC 62305-3	-	Protection against lightning - Part 3: Physical damage to structures and life hazard	EN 62305-3	-
IEC 62305-4	-	Protection against lightning - Part 4: Electrical and electronic systems within structures	EN 62305-4	-
IEC 62477-1	2012	Safety requirements for power electronic converter systems and equipment - Part 1: General	EN 62477-1	2012
-	-	https://standards.iteh.ai/catalog/standards/sist/35d83d12-b086-4b78-a0e0-da273331f711/sist-en-iec-61400-1-2019	+ A11	2014
ISO 76	-	Rolling bearings - Static load ratings	-	-
ISO 281	-	Rolling bearings - Dynamic load ratings and rating life	-	-
ISO 2394	-	General principles on reliability for structures	-	-
ISO 2533	-	Standard Atmosphere	-	-
ISO 4354	-	Wind actions on structures	-	-
ISO 6336-2	-	Calculation of load capacity of spur and helical gears – Part 2: Calculation of surface durability (pitting)	-	-
ISO 6336-3	2006	Calculation of load capacity of spur and helical gears – Part 3: Calculation of tooth bending strength	-	-
ISO 12494	2001	Atmospheric icing of structures	-	-
ISO 13850	-	Safety of machinery - Emergency stop function - Principles for design	EN ISO 13850	-
ISO/TS 16281	-	Rolling bearings -- Methods for calculating the modified reference rating life for universally loaded bearings	-	-

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Wind energy generation systems –
Part 1: Design requirements

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da273331f711/sist-en-iec-61400-1-2019](https://standards.iteh.ai/catalog/standards/sist/35d83d12-b086-4b78-a0e0-da273331f711/sist-en-iec-61400-1-2019)

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