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Elektroenergetski postroji za izmenične napetosti nad 1 kV in enosmerne napetosti nad 1,5 kV - 1. del: Izmenična napetost

Power installations exceeding 1 kV AC and 1,5 kV DC Part 1: AC
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ICS:

29.240.01	Omrežja za prenos in distribucijo električne energije na splošno	Power transmission and distribution networks in general
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EUROPEAN STANDARD

EN IEC 61936-1

NORME EUROPÉENNE

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August 2021

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Supersedes EN 61936-1:2010 and all of its amendments
and corrigenda (if any)

English Version

Power installations exceeding 1 kV AC and 1,5 kV DC - Part 1:
AC
(IEC 61936-1:2021)

Installations électriques de puissance de tension supérieure
à 1 kV en courant alternatif et 1,5 kV en courant continu -
Partie 1: Courant alternatif
(IEC 61936-1:2021)

Starkstromanlagen mit Nennwechselfspannungen über 1 kV
AC und 1,5 kV DC - Teil 1: Wechselstrom
(IEC 61936-1:2021)

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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 61936-1:2021 (E)**European foreword**

The text of document 99/311/FDIS, future edition 3 of IEC 61936-1, prepared by IEC/TC 99 “Insulation co-ordination and system engineering of high voltage electrical power installations above 1,0 kV AC and 1,5 kV DC” was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61936-1:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-05-11 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2024-08-11 document have to be withdrawn

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

IEC 60034-3	NOTE	Harmonized as EN IEC 60034-3
IEC 60038	NOTE	Harmonized as EN 60038
IEC 60068 (series)	NOTE	Harmonized as EN 60068 (series)
IEC 60076-13	NOTE	Harmonized as EN 60076-13
IEC 60092 (series)	NOTE	Harmonized as EN 60092 (series)
IEC 60282-1	NOTE	Harmonized as EN IEC 60282-1
IEC 60364-4-41	NOTE	Harmonized as HD 60364-4-41
IEC 60364-7-729	NOTE	Harmonized as HD 60364-7-729
IEC 60376	NOTE	Harmonized as EN IEC 60376
IEC 60480	NOTE	Harmonized as EN IEC 60480
IEC 60664-1	NOTE	Harmonized as EN IEC 60664-1
IEC 60721 (series)	NOTE	Harmonized as EN 60721 (series)
IEC 60721-2-2	NOTE	Harmonized as EN 60721-2-2

IEC 60721-2-3	NOTE	Harmonized as EN 60721-2-3
IEC 60721-2-4	NOTE	Harmonized as EN IEC 60721-2-4
IEC 60721-2-7	NOTE	Harmonized as EN IEC 60721-2-7
IEC 60721-3-1	NOTE	Harmonized as EN IEC 60721-3-1
IEC 60721-3-2	NOTE	Harmonized as EN IEC 60721-3-2
IEC 60832 (series)	NOTE	Harmonized as EN 60832 (series)
IEC 60855-1	NOTE	Harmonized as EN 60855-1
IEC 60865-1	NOTE	Harmonized as EN 60865-1
IEC 60909 (series)	NOTE	Harmonized as EN 60909 (series)
IEC 61000 (series)	NOTE	Harmonized as EN IEC 61000 (series)
IEC 61039	NOTE	Harmonized as EN 61039
IEC 61082-1	NOTE	Harmonized as EN 61082-1
IEC 61243 (series)	NOTE	Harmonized as EN 61243 (series)
IEC 61355-1	NOTE	Harmonized as EN 61355-1
IEC 61869 (series)	NOTE	Harmonized as EN IEC 61869 (series)
IEC 62271-4	NOTE	Harmonized as EN 62271-4
IEC 62271-100	NOTE	Harmonized as EN 62271-100
IEC 62271-102	NOTE	Harmonized as EN IEC 62271-102
IEC 62271-103	NOTE	Harmonized as EN 62271-103
IEC 62271-104	NOTE	Harmonized as EN IEC 62271-104
IEC 62271-105	NOTE	Harmonized as EN 62271-105
IEC 62271-206	NOTE	Harmonized as EN 62271-206
IEC 62305 (series)	NOTE	Harmonized as EN 62305 (series)
IEC 81346 (series)	NOTE	Harmonized as EN IEC 81346 (series)
ISO 26800	NOTE	Harmonized as EN ISO 26800

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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 60034-1	-	Rotating electrical machines - Part 1: Rating and performance	-	-
IEC 60060-1	-	High-voltage test techniques - Part 1: General definitions and test requirements	EN 60060-1	-
IEC 60071-1	2019	Insulation co-ordination - Part 1: Definitions, principles and rules	EN IEC 60071-1	2019
IEC 60071-2	-	Insulation co-ordination – Part 2: Application guidelines	EN IEC 60071-2	-
IEC 60076	series	Power transformers	EN 60076	series
IEC 60079-0	-	Explosive atmospheres - Part 0: Equipment - General requirements	EN IEC 60079-0	-
IEC 60079-10-1	-	Explosive atmospheres - Part 10–1: Classification of areas - Explosive gas atmospheres	EN IEC 60079-10-1 -	
IEC 60079-10-2	-	Explosive atmospheres - Part 10–2: Classification of areas - Explosive dust atmospheres	EN 60079-10-2	
IEC 60255	series	Measuring relays and protection equipment	EN 60255	series
IEC 60331-1	-	Tests for electric cables under fire conditions - Circuit integrity - Part 1: Test method for fire with shock at a temperature of at least 830 °C for cables of rated voltage up to and including 0,6/1,0 kV and with an overall diameter exceeding 20 mm	EN IEC 60331-1	-
IEC 60331-21	-	Tests for electric cables under fire conditions - Circuit integrity - Part 21: Procedures and requirements - Cables of rated voltage up to and including 0,6/1,0 kV	-	-
IEC 60332	series	Tests on electric cables under fire conditions	EN 60332	series

IEC 60364	series	Low-voltage electrical installations	HD 60364	series
IEC 60479-1	2018	Effects of current on human beings and livestock - Part 1: General aspects	-	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	-	-
IEC 60754	series	Test on gases evolved during combustion of materials from cables	EN 60754	series
IEC 61034-1	-	Measurement of smoke density of cables burning under defined conditions - Part 1: Test apparatus	EN 61034-1	-
IEC 61219	-	Live working - Earthing or earthing and short-circuiting equipment using lances as a short-circuiting device - Lance earthing	EN 61219	-
IEC 61230	-	Live working - Portable equipment for earthing or earthing and short-circuiting	EN 61230	-
IEC 62271-1	2017	High-voltage switchgear and controlgear - Part 1: Common specifications for alternating current switchgear and controlgear	EN 62271-1	2017
IEC 62271-200	-	High-voltage switchgear and controlgear - Part 200: AC metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV	EN IEC 62271-200	-
IEC 62271-201	-	High-voltage switchgear and controlgear - Part 201: AC solid-insulation enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV	EN 62271-201	-
IEC 62271-202	-	High-voltage switchgear and controlgear - Part 202: High-voltage/ low-voltage prefabricated substation	EN 62271-202	-
IEC 62271-203	-	High-voltage switchgear and controlgear - Part 203: Gas-insulated metal-enclosed switchgear for rated voltages above 52 kV	EN 62271-203	-
IEC 62271-207	-	High-voltage switchgear and controlgear - Part 207: Seismic qualification for gas-insulated switchgear assemblies for rated voltages above 52 kV	EN 62271-207	-
IEC 62305	series	Protection against lightning	EN 62305	series
IEC/TR 61000-5-2	-	Electromagnetic compatibility (EMC) - Part 5: Installation and mitigation guidelines - Section 2: Earthing and cabling	-	-
IEC/TR 62271-300	-	High-voltage switchgear and controlgear - Part 300: Seismic qualification of alternating current circuit-breakers	-	-
IEC/TS 60815-1	-	Selection and dimensioning of high-voltage-insulators intended for use in polluted conditions - Part 1: Definitions, information and general principles	-	-

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IEC/TS 60815-2	-	Selection and dimensioning of high-voltage- insulators intended for use in polluted conditions - Part 2: Ceramic and glass insulators for a.c. systems	-
IEC/TS 60815-3	-	Selection and dimensioning of high-voltage- insulators intended for use in polluted conditions - Part 3: Polymer insulators for a.c. systems	-
IEC/TS 61463	-	Bushings - Seismic qualification	-
IEC/IEEE 82079-1	-	Preparation of information for use (instructions for use) of products - Part 1: Principles and general requirements	EN IEC/IEEE 82079-1

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INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Power installations exceeding 1 kV AC and 1,5 kV DC –
Part 1: AC**

(standards.iteh.ai)

**Installations électriques de puissance de tension supérieure à 1 kV en courant
alternatif et 1,5 kV en courant continu –**

Partie 1: Courant alternatif

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