Elektriõhuliinid vahelduvpingega üle 45 kV. Osa 1: Üldnõuded - ühised eeskirjad KONSOLIDEERITUD TEKST

Overhead electrical lines exceeding AC 45 kV - Part 1: General requirements - Common specifications CONSOLIDATED TEXT

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50341-1:2006+A1:2009 sisaldab Euroopa standardi EN 50341-1:2001+EN 50341-1:2001/A1:2009 ingliskeelset teksti.	This Estonian standard EVS-EN 50341-1:2006+A1:2009 consists of the English text of the European standard EN 50341-1:2001+EN 50341-1:2001/A1:2009.
Standard on kinnitatud Eesti Standardikeskuse 05.11.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 05.11.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
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English version

Overhead electrical lines exceeding AC 45 kV Part 1: General requirements - Common specifications

Lignes électriques aériennes dépassant AC 45 kV
Partie 1: Règles générales - Spécifications communes

Freileitungen über AC 45 kV
Teil 1: Allgemeine Anforderungen - Gemeinsame Festlegungen

CENELEC

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

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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 11, Overhead electrical lines exceeding AC 1 kV (DC 1,5 kV).

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50341-1 on 2001-01-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2002-05-01
- latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2004-01-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annexes E, G, J & K are normative and annexes A, B, C, D, F, H, L, M, N, P, Q & R are informative.

As far as the overhead lines towers are concerned, the designer may refer to prEN 1993-7-1, currently referred to as ENV 1993-3-1, as prepared by TC 250 of CEN, if considered appropriate.

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Introduction

Detailed structure of the standard

The standard comprises three parts:

Part 1: General requirements - Common specifications

This part, also referred to as the Main Body, includes clauses common to all countries. These clauses have been prepared by Working Groups and approved by CLC/TC 11.

The Main Body is available in English, French and German.

Part 2: Index of National Normative Aspects

This index gives the list of all the National Normative Aspects (NNAs) - see signification and contents of NNAs hereafter under “Part 3: National Normative Aspects”.

The index is available in English, French and German.

Part 3: National Normative Aspects

The National Normative Aspects (NNAs) reflect national practices. They generally include A-deviations, special national conditions and national complements.

A-deviations:

A-deviations are required by existing national laws or regulations, which cannot be altered at the time of preparation of the standard.

Reference is made to CENELEC Internal Regulations Part 2, definition 3.1.9.

Special national conditions (snc):

Special national conditions are national characteristics or practices that cannot be changed even over a long period, e.g. those due to climatic conditions, earth resistivity, etc.

Reference is made to CENELEC Internal Regulations, Part 2, definition 3.1.7/ 3.1.9.

National complements (NCPTs):

National complements reflect national practices, which are neither A-deviations, nor special national conditions. It has been agreed within CLC/TC 11 that NCPTs should be gradually adapted to the Main Body, aiming at the usual EN standard structure including only a Main Body, A-deviations and special national conditions.

Rules for the numbering of NNAs:

The NNAs are numbered as follows :

AT	Austria	EN 50341-3-1
BE	Belgium	EN 50341-3-2
CH	Switzerland	EN 50341-3-3
DE	Germany	EN 50341-3-4
DK	Denmark	EN 50341-3-5
ES	Spain	EN 50341-3-6
FI	Finland	EN 50341-3-7
FR	France	EN 50341-3-8
GB	Great Britain	EN 50341-3-9
GR	Greece	EN 50341-3-10
IE	Ireland	EN 50341-3-11
IS	Iceland	EN 50341-3-12
IT	Italy	EN 50341-3-13
LU	Luxembourg	EN 50341-3-14 (non existant)
NL	Netherlands	EN 50341-3-15
NO	Norway	EN 50341-3-16
PT	Portugal	EN 50341-3-17
SE	Sweden	EN 50341-3-18
CZ	Czech Republic	EN 50341-3-19
x	xxxx	EN 50341-3-xx, etc.

Language:

The NNAs are published in English and in the national language(s) of the respective country.

1 Scope

This standard applies to overhead electric lines with rated voltages exceeding 45 kV AC and with rated frequencies below 100 Hz.

This standard specifies the general requirements that shall be met for the design and construction of new overhead lines to ensure that the line is suitable for its purpose with regard to safety of persons, maintenance, operation and environmental considerations.

NOTE 1 The extent of the application of this standard by each country in respect of existing overhead lines is subject to the requirements of the National Normative Aspects (NNA) applicable to that country.

NOTE 2 Design and construction of overhead lines with insulated conductors, where internal and external clearances can be smaller than specified in the standard are not included. All other requirements of the standard may be applied to overhead lines with insulated conductors. When necessary, requirements for clearances can be given in the NNAs.

NOTE 3 This part of the standard is applicable for optical Ground Wires (OPGWs) and optical Conductors (OPCONs). However the standard is not applicable to telecommunication systems which are used on overhead transmission lines either attached to the transmission line conductor/earth wire system (for example wraparound,...) or as separate cables supported by the transmission supports for example All Dielectric Self Supporting (ADSS) or for telecommunication equipment mounted on individual transmission line structures. When necessary, requirements can be given in the NNAs.

This standard does not apply to :
- overhead electric lines inside closed electrical areas as defined in HD 637;
- catenary systems of electrified railways.

2 Definitions, symbols and references

2.1 Definitions

For the purposes of this European Standard, the terms and definitions given in the International Vocabulary (IEC 60050) Chapters 441, 466, 471, 601 and 604 and the following apply.

In order to achieve a better understanding of the definition of certain terms used in this standard, some words in the definitions are written in *italics*. The definitions of these words are also given in this subclause.

2.1.1
action
a) force (load) applied to the *(mechanical) system* (direct action).

NOTE An action can be *permanent, variable* or *accidental.*

b) an imposed or constrained deformation or an imposed acceleration caused for example, by temperature changes, moisture variation, uneven settlement or earthquakes (indirect action)

2.1.2
accidental action
action, usually of short duration, which is unlikely to occur with a significant magnitude during the *design working life*

NOTE An accidental action can be expected in many cases to cause severe consequences unless special measures are taken.