Norma Española

UNE-EN 50341-2-1:2020

Idioma: Inglés

Líneas eléctricas aéreas de más de 1 kV en corriente alterna. Parte 2-1: Aspectos Normativos Nacionales para Austria (basados en la norma EN 50341-1-2012). (Ratificada por la Asociación Española de Normalización en julio de 2020.)

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Overhead electrical lines exceeding AC 1 kV - Part 2-1: National Normative Aspects (NNAs) for Austria (based on EN 50341-1:2012) (Endorsed by Asociación Española de Normalización in July of 2020.)

En cumplimiento del punto 11.2.5.4 de las Reglas Internas de CEN/CENELEC Parte 2, se ha otorgado el rango de documento normativo español UNE al documento normativo europeo EN 50341-2-1:2020 (Fecha de disponibilidad 2020-05-29)

Este documento está disponible en los idiomas oficiales de CEN/CENELEC/ETSI.

Este anuncio causará efecto a partir del primer día del mes siguiente al de su publicación en la revista UNE.

La correspondiente versión oficial de este documento se encuentra disponible en la Asociación Española de Normalización (Génova 6 28004 MADRID, www.une.org).

Las observaciones a este documento han de dirigirse a:

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50341-2-1

May 2020

ICS 29.240.20

English Version

Overhead electrical lines exceeding AC 1 kV - Part 2-1: National Normative Aspects (NNAs) for Austria (based on EN 50341-1:2012)

This European Standard was approved by CENELEC on 2020-04-15.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

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European foreword

1 The Austrian National Committee is identified by the following address:

Austrian Electrotechnical Association
Standardization
Eschenbachgasse, 9
A - 1010 Vienna
Austria
phone +43 1 587 63 73-0

Name of the relevant technical body: TK-L Starkstromfreileitungen und Verlegung von Energiekabeln (Overhead power lines)

2 The Austrian NC and its technical body TK-L “Overhead power lines” of Austrian Electrotechnical Association (OVE) prepared this Part 2-1 of EN 50341, listing the Austrian National Normative Aspects (NNA) under its sole responsibility, and duly passed it through the CENELEC and CLC/TC 11 procedures.

NOTE The Austrian NC also takes sole responsibility for the technically correct co-ordination of this EN 50341-2-1:2020 with EN 50341-1:2012. It performed the necessary checks in the frame of quality assurance/control. However, it is noted that this quality control was made in the framework of the general responsibility of a standards committee under the national laws/regulations.

3 This EN 50431-2-1, hereafter referred to as Part 2-1, is normative in Austria and informative in other countries.

4 This Part 2-1 shall be read in conjunction with EN 50341-1, hereafter referred to as Part 1. All clause numbers used in this NNA correspond to those of Part 1. Specific subclauses, which are prefixed “AT”, shall be read as amendments to the relevant text in Part 1. Any necessary clarification regarding the application of this NNA in conjunction with Part 1 shall be referred to the Austrian NC who will, in co-operation with CLC/TC 11, clarify the requirements.

When no reference is made in this NNA to a specific subclause, then Part 1 applies.

5 In case of “boxed values” defined in Part 1, amended values, (if any) which are defined in Part 2-1 shall be taken into account in Austria.

However, any “boxed value”, whether in Part 1 or in this Part 2-1, shall not be amended in the direction of greater risk in a Project Specification.

6 The National Austrian standards/regulations related to overhead electrical lines exceeding 1 kV AC are listed in 2.1 of this Part 2-1.

NOTE All national standards referred to in this Part 2-1 will be replaced by the relevant European Standards as soon as they become available and are declared by the austrian NC to be applicable and thus reported to the secretary of CLC/TC 11.

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1 Scope

1.1 General

(A-dev) AT.1: A new overhead line is defined as the new construction of the totality of all conductors, their supports together with foundations, earthing grid, insulators, accessories and fittings used for the overground transport of electrical energy between two points A and B.

1.2 Field of application

(A-dev) AT.1: Stranded-conductors or cable structures with telecommunications components carried on the line that do not simultaneously function as earth wires or stranded conductors are subject to the provisions of Annex U.

2 Normative references, definitions and symbols

2.1 Normative references

(A-dev) AT.1: Normative references and other publications

Reference	*Title*
ÖNORM B 1990-1	*Eurocode - Basis of structural design - Part 1: Building construction - National specifications concerning ÖNORM EN 1990 and national supplements*
ÖNORM B 1991-1-4	*Eurocode 1: Actions on structures - Part 1-4: General actions - Wind actions - National specifications concerning ÖNORM EN 1991-1-4 and national supplements*
ÖNORM B 1992-1-1	*Eurocode 2 - Design of concrete structures - Part 1-1: General rules and rules for buildings - National specifications concerning ÖNORM EN 1992-1-1, national comments and national supplements*
ÖNORM B 1997-1-1	*Eurocode 7: Geotechnical design - Part 1: General rules - National specifications concerning ÖNORM EN 1997-1 and national supplements*
ÖNORM B 1997-1-3	*Eurocode 7 - Geotechnical design - Part 1-3: Pile foundations*
ÖNORM E 4007	*Electrical overhead lines; galvanized steel stranded conductors*
ÖNORM E 4101	*Electrical overhead lines; pin insulators type VHD and type VHD-G*
ÖNORM E 4102	*Electrical overhead lines; solid core line post insulators VKSt and VKS*
ÖNORM E 4104	*Electrical overhead lines; ball and socket; coupling dimensions*
ÖNORM E 4125	*Electrical overhead lines; ball and socket; IEC-coupling dimensions*
ÖNORM EN 1090-1	*Execution of steel structures and aluminium structures - Part 1: Assessment and verification of constancy of performance of steel components and aluminium components for structural use*
ÖNORM EN 1090-2	*Execution of steel structures and aluminium structures - Part 2: Technical requirements for steel structures*
ÖNORM EN 12929-1	*Safety requirements for cableway installations designed to carry persons - General requirements - Part 1: Requirements for all installations*

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ÖNORM EN 1991-1-4	*Eurocode 1: Actions on structures - Part 1-4: General actions - Wind actions*
ÖNORM EN 1992-1-1	*Eurocode 2: Design of concrete structures - Part 1-1: General rules and rules for buildings*
ÖNORM EN 1993-1-1	*Eurocode 3: Design of steel structures - Part 1-1: General rules and rules for buildings*
ÖNORM EN 1997-1	*Eurocode 7: Geotechnical design - Part 1: General rules*
ÖNORM EN 1997-2	*Eurocode 7 - Geotechnical design - Part 2: Ground investigation and testing*
ÖNORM EN 61232	*Aluminium-clad steel wires for electrical purposes*
ÖVE EN 60383-1	*Insulators for overhead lines with a nominal voltage above 1 kV - Part 1: Ceramic or glass insulator units for AC systems - Definitions, test methods and acceptance criteria*
ÖVE EN 60383-2	*Insulators for overhead lines with a nominal voltage above 1000 V - Part 2: Insulator strings and insulator sets for a.c. systems - Definitions, test methods and acceptance criteria*
ÖVE ÖNORM EN 61109	*Insulators for overhead lines - Composite suspension and tension insulators for a.c. systems with a nominal voltage greater than 1 000 V - Definitions, test methods and acceptance criteria*
ÖVE ÖNORM EN 61952	*Insulators for overhead lines - Composite line post insulators for A.C. systems with a nominal voltage greater than 1 000 V - Definitions, test methods and acceptance criteria*
ÖVE/ÖNORM E 8383	*Power installations exceeding 1 kV AC*
ÖVE/ÖNORM EN 50110-1	*Operation of electrical installations - Part 1: General requirements (Part 2-100: National annexes)*
ÖVE/ÖNORM EN 50182	*Conductors for overhead lines - Round wire concentric lay stranded conductors*
ÖVE/ÖNORM EN 50189	*Conductors for overhead lines - Zinc coated steel wires*
ÖVE/ÖNORM EN 50522	*Earthing of power installations exceeding 1 kV a.c.*
ÖVE/ÖNORM EN 60865-1	*Short-circuit currents - Calculation of effects - Part 1: Definitions and calculation methods*
ÖVE/ÖNORM EN 61936-1	*Power installations exceeding 1 kV a.c. - Part 1: Common rules*
ÖVE-L 1	*Construction of overhead lines up to 1000 V*
OVE Directive R23-1	*Electrical, magnetic and electromagnetic fields in the frequency range from 0 Hz to 300 GHz Part 1: Limiting exposure of members of the public*
VbF	*Federal Decree on flammable liquids*
VEMF	*Federal Decree on electromagnetic fields*
DIN 48207	*Stranded conductors; laying of stranded conductors for overhead lines*

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2.2 Definitions

2.2.5
box values

(A-dev) AT.1: Unless otherwise specified in an NNA, boxed values are to be applied as minimum requirements.

2.2.109

(ncpt) AT.1:
conductor pull
is the product of the rated cross section of the conductor and the tensile stress acting in this cross section in the tangential direction of the sag curve.

(ncpt) AT.2:
tensile strength
is the value derived from the conductor pull divided by the rated cross section of the conductor.

(ncpt) AT.3:
Mean tensile strength
is the horizontal component of the tensile stress in the conductor that occurs at the mean annual temperature, generally +10 °C, excluding wind load.

(ncpt) AT.4:
upward or downward pull
is the product of horizontal conductor pull and the tangent of the angle of inclination of the straight line connecting the two suspension points against the horizontal.

(ncpt) AT.5:

rated cross section
of a conductor is the metallic cross section calculated from the data sheets. The rated cross section of an aerial cables is defined as the mechanical load-carrying section of the cable only.

(ncpt) AT.6:
span
is the sector of a line between two consecutive supports of that line.

(ncpt) AT.7:
span length
is the horizontal distance between two consecutive supports of that line.

(ncpt) AT.8:
section
is the sector of an overhead line having one or more spans between two consecutive tension towers.

(ncpt) AT.9:
A conductor crosses an object
when, as a result of being deflected by wind acting in the direction of that facility, the outline of the conductor intersects the outline of the object.

(ncpt) AT.10:
crossing span
The span to which the condition according to AT.9 applies.

(ncpt) AT.11:
sag
of a conductor is the vertically measured distance between a point of the conductor axis and the straight line connecting the conductor‘s two points of suspension.

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