

**Concentric lay stranded overhead electrical
conductors containing one or more gap(s)**

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 62420:2008 sisaldab Euroopa standardi EN 62420:2008 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 26.09.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

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Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 62420:2008 consists of the English text of the European standard EN 62420:2008.

This standard is ratified with the order of Estonian Centre for Standardisation dated 26.09.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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Võtmesõnad:

Standardite reprodutseerimis- ja levitamisoigus kuulub Eesti Standardikeskusele

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**Concentric lay stranded overhead electrical conductors
containing one or more gap(s)
(IEC 62420:2008)**

Conducteurs pour lignes électriques
aériennes câblés en couches
concentriques comprenant
un ou plusieurs intervalle(s)
(CEI 62420:2008)

Leiter für Freileitungen aus
konzentrisch verseilten runden Drähten
mit einem oder mehreren
Zwischenraum/räumen
(IEC 62420:2008)

This European Standard was approved by CENELEC on 2008-06-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 7/587/FDIS, future edition 1 of IEC 62420, prepared by IEC TC 7, Overhead electrical conductors, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62420 on 2008-06-01.

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) | 2009-03-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2011-06-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62420:2008 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 referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60104	1987	Aluminium-magnesium-silicon alloy wire for overhead line conductors	—	—
IEC 60888	1987	Zinc-coated steel wires for stranded conductors	—	—
IEC 60889	1987	Hard-drawn aluminium wire for overhead line conductors	EN 60889	1997
IEC 61232 (mod)	1993	Aluminium-clad steel wires for electrical purposes	EN 61232 + corr. February + A11	1995 1996 2000
IEC 61395	1998	Overhead electrical conductors - Creep test procedures for stranded conductors	EN 61395	1998
IEC 62004	2007	Thermal resistant aluminium alloy wire for overhead line conductor	—	—

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CONCENTRIC LAY STRANDED OVERHEAD ELECTRICAL CONDUCTORS CONTAINING ONE OR MORE GAP(S)

1 Scope

This International Standard specifies the electrical and mechanical characteristics of concentric lay stranded overhead electrical conductors, containing one or more self-supporting aluminium or aluminium alloy layer(s) as depicted in Figure 1, made of combinations of any of the following metal wires:

- a) hard-drawn aluminium as per IEC 60889, designated A1;
- b) aluminium alloy type A or B as per IEC 60104, designated A2 or A3;
- c) thermal resistant aluminium alloy type as per IEC 62004, designated AT1, AT2, AT3 or AT4;
- d) regular strength steel as per IEC 60888, designated S1A or S1B;
- e) high strength steel as per IEC 60888, designated S2A or S2B;
- f) extra-high strength steel as per IEC 60888, designated S3A;
- g) aluminium-clad steel as per IEC 61232, designated 20SA, 27SA, 30SA or 40SA.

NOTE This standard covers the construction of self-damping conductors, as well as gap-type conductors. Although both types of conductors share a common design feature and the presence of one or more gaps between layers, they are intended for different purposes. Self-damping conductors (SDC) may have more than one gap to provide increased self-damping, whereas gap-type conductors are so designed as to allow the aluminium layers to slide freely over the core during installation, and therefore usually do not require more than one gap.

The various metal combinations permitted by this standard shall be in accordance with Table 1.

2 Normative references

The following referenced documents are indispensable for the application 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.

IEC 60104:1987, *Aluminium-magnesium-silicon alloy wire for overhead line conductors*

IEC 60888:1987, *Zinc-coated steel wires for stranded conductors*

IEC 60889:1987, *Hard-drawn aluminium wire for overhead line conductors*

IEC 61232:1993, *Aluminium-clad steel wires for electrical purposes*

IEC 61395:1998, *Creep test procedures for stranded conductors*

IEC 62004:2007, *Thermal resistant aluminium alloy wire for overhead line conductors*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

aluminium

all types of aluminium and aluminium alloys listed in Clause 1

3.2

annular gap

constant space, void of any material except for air or grease, between two layers of a conductor