



SLOVENSKI STANDARD
SIST EN 3475-203:2009
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Aerospace series - Cables, electrical, aircraft use - Test methods - Part 203: Dimensions

Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrtverwendung - Prüfverfahren -
 Teil 203: Maße

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Série aérospatiale - Câbles électriques à usage aéronautique - Méthodes d'essais -
 Partie 203 : Dimensions

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Ta slovenski standard je istoveten z: EN 3475-203:2006

ICS:

49.060 Š^æ\ æš Å^•[|b\ æ Aerospace electric
 ^|\ dā} æ] !^ { æš Åã c^ { ã equipment and systems

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3475-203

April 2006

ICS 49.060

English Version

**Aerospace series - Cables, electrical, aircraft use - Test
methods - Part 203: Dimensions**

Série aérospatiale - Câbles électriques à usage
aéronautique - Méthodes d'essais - Partie 203 :
Dimensions

Luft- und Raumfahrt - Elektrische Leitungen für
Luftfahrtverwendung - Prüfverfahren - Teil 203: Maße

This European Standard was approved by CEN on 27 February 2006.

CEN 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 CEN 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 CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This European Standard (EN 3475-203:2006) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of AECMA, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2006, and conflicting national standards shall be withdrawn at the latest by October 2006.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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EN 3475-203:2006 (E)**1 Scope**

This standard specifies a method of measuring the dimensions of conductors and cables.

It shall be used together with EN 3475-100.

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.

EN 3475-100, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 100: General.*

3 Apparatus**3.1 Conductor diameter**

The measurement shall be made with a friction or dial micrometer with flat ends having a diameter of at least 5 mm. Use an instrument constructed with a vernier capable of measurement to the nearest 0,01 mm.

3.2 Insulation and/or jacket

The measurements shall be carried out either with a profile projector, or measuring microscope or equivalent apparatus.

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3.3 External diameter

The measurement shall be made with a friction or dial micrometer with flat ends having a diameter of at least 5 mm for single cables and at least 15 mm for multiconductor cables, or with a profile projector.

4 Method**4.1 Conductor**

The following shall be verified:

- the number of strands making up the conductor;
- the nominal diameter of the strands;
- the diameter of the suitably straightened conductor.

Measure the outside diameter (OD) of the specimen in at least three locations approximately one meter apart. Each measurement shall consist of two micrometer readings taken at 90° from each other.

(OD) = average diameter over the conductor

4.2 Insulation and/or jacket

4.2.1 Wrapped insulation and/or jacket

Verify the following:

- the number of tapes (if possible);
- the sealing of the tapes;
- the tape overlap;
- the minimum thickness of the outer coating or layer or sealed material (if applicable).

4.2.2 Extruded insulation and/or jacket

The radial thickness shall be measured at the thinnest and thickest points.

4.2.3 Minimum average thickness

Four measurements shall be made successively around the circumference of the specimen at 90° intervals.

The first measurement shall be made at the thinnest point of the cross-section.

4.3 External diameter

4.3.1 Single insulated wire or cable

Measure the outside diameter (OD) of the specimen in at least three locations approximately one metre apart. Each measurement shall consist of two micrometer readings taken at 90° from each other.

4.3.2 Non cylindrical cables

Measure the outside diameter (OD) of the specimen in at least six locations approximately equidistant along the length of the specimen.

NOTE The location of each measurement shall be made at the maximal overall dimension.

(OD) = average diameter over the insulation or jacket

5 Requirements

5.1 Conductor

The number of strands, the diameter of the strands and of the conductor shall comply with the values given in the product standard (if applicable).

EN 3475-203:2006 (E)**5.2 Insulation and/or jacket****5.2.1 Wrapped insulation and/or jacket**

The characteristics shall conform to requirements given in the technical specification or the product standard (if applicable).

5.2.2 Extruded insulation and/or jackets

The characteristics shall conform to requirements given in the technical specification or the product standard (if applicable).

The minimum value of the radial thickness shall not be less than 70 % of the maximum measured value (the minimum to maximum thickness ratio).

5.2.3 Minimum thickness average

The average of the four measurements shall be equal to or greater than the minimum value given in the product standard (if applicable).

5.3 External diameter

The external diameter (average) shall conform to that stated in the product standard.

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