SLOVENSKI STANDARD
SIST EN 4611-002:2018

01-november-2018

Nadomešča:
SIST EN 4611-002:2012

Aeronavtika - Kabli, električni, za splošne namene, eno- in večžilni - Družina XLETFE - 002. del: Splošno

Aerospace series - Cables, electrical, for general purpose, single and multicore assembly - XLETFE Family - Part 002: General

Luft- und Raumfahrt - Ein- und mehradrige elektrische Leitungen zur allgemeines Verwendung - XLETFE Familie - Teil 002: Allgemeines

Série aérospatiale - Câbles, électriques, d'usage général, mono et multiconducteurs - Famille XLETFE - Partie 002 : Généralités

Ta slovenski standard je istoveten z: **EN 4611-002:2018**

ICS:

29.060.20	Kabli	Cables
49.060	Letalska in vesoljska električna oprema in sistemi	Aerospace electric equipment and systems

SIST EN 4611-002:2018 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 4611-002

August 2018

ICS 49.060

Supersedes EN 4611-002:2012

English Version

Aerospace series - Cables, electrical, for general purpose, single and multicore assembly - XLETFE Family - Part 002: General

Série aérospatiale - Câbles, électriques, d'usage général, mono et multiconducteurs - Famille XLETFE - Partie 002 : Généralités

Luft- und Raumfahrt - Ein- und mehradrige elektrische Leitungen zur allgemeinen Verwendung - XLETFE-Familie - Teil 002: Allgemeines

This European Standard was approved by CEN on 20 May 2018.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 4611-002:2018) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-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 ASD, 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 February 2019, and conflicting national standards shall be withdrawn at the latest by February 2019.

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

This document supersedes EN 4611-002:2012.

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

1 Scope

This European Standard specifies the list of product standards and common characteristics of electrical cables for use in the on-board electrical systems of aircraft operating at temperatures between – 65 °C to 135 °C and 150 °C, dependent upon conductor type. The voltage rating is 600 V rms at sea level. This insulation system has been used in aerospace applications using 115 V ac (phase-to-neutral) 400 Hz and 28 V dc. Verification of the suitability of cables for use in other electrical systems is the responsibility of the user.

2 Normative references

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.

EN 2084, *Aerospace series — Cables, electrical, general purpose, with conductors in copper or copper alloy — Technical specification*

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

EN 3838, *Aerospace series — Requirements and tests on user-applied markings on aircraft electrical cables*

ISO 2635, *Aircraft — Conductors for general purpose aircraft electrical cables and aerospace applications — Dimensions and characteristics* [1)]

TR 6058, *Aerospace series — Cable code identification list* [2)]

3 Terms, definitions, symbols and abbreviations

For the purposes of this document, the following terms definitions, symbols and abbreviations given in EN 3475-100 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

1) Published by: International Organization for Standardization (ISO), http://www.iso.ch/

2) Published as ASD-STAN Technical Report at the date of publication of this european standard by AeroSpace and Defence industries Association of Europe - Standardization (ASD-STAN) (www.asd-stan.org)

4 List of product standards

EN 4611-003, *Aerospace series — Cables, electrical, for general purpose, single and multicore assembly — XLETFE Family — Part 003: Tin plated copper — Operating temperatures, between – 65 °C and 135 °C — Single extruded wall for enclosed applications — UV laser printable — Product standard*

EN 4611-004, *Aerospace series — Cables, electrical, for general purpose, single and multicore assembly — XLETFE Family — Part 004: Tin plated copper — Operating temperatures, between – 65 °C and 135 °C — Dual extruded wall for open applications — UV laser printable — Product standard*

EN 4611-005, *Aerospace series — Cables, electrical, for general purpose, single and multicore assembly — XLETFE Family — Part 005: Silver plated copper — Operating temperatures, between – 65 °C and 150 °C — Single extruded wall for enclosed applications — UV laser printable — Product standard*

EN 4611-006, *Aerospace series — Cables, electrical, for general purpose, single and multicore assembly — XLETFE Family — Part 006: Silver plated copper — Operating temperatures, between – 65 °C and 150 °C — Dual extruded wall for open applications — UV laser printable — Product standard*

EN 4611-007, *Aerospace series — Cables, electrical, for general purpose, single and multicore assembly — XLETFE Family — Part 007: Nickel plated copper — Operating temperatures, between – 65 °C and 150 °C — Dual extruded wall for open applications — UV laser printable — Product standard*

EN 4611-008, *Aerospace series — Cables, electrical, for general purpose, single and multicore assembly — XLETFE Family — Part 008: BP — Nickel plated copper — Operating temperatures, between – 65 °C and 150 °C — Dual extruded wall for open applications, with additional protection in areas of high vibration, cable flexing and fluid contamination — UV laser printable — Product standard*

EN 4611-009, *Aerospace series — Cables, electrical, for general purpose, single and multicore assembly — XLETFE Family — Part 009: BJ — Nickel plated copper — Operating temperatures, between – 65 °C and 150 °C — Single extruded wall for use as cable cores or within equipment in areas of high vibration, cable flexing and fluid contamination — UV laser printable — Product standard*

5 Materials and construction

5.1 Materials

The cable conductors shall be made of copper or copper alloy and nickel or silver or tin-plated conforming to ISO 2635 Table 2 or as specified in product standards.

5.2 Construction

5.2.1 General

See individual product standards.

5.2.2 Cores

Number of cores, see Table 1.

Table 1

Number of cores	1	2	3	4	5	6	7	8	9	10
Specified code	A	B	C	D	E	F	G	H	J	K

6 Identification and marking

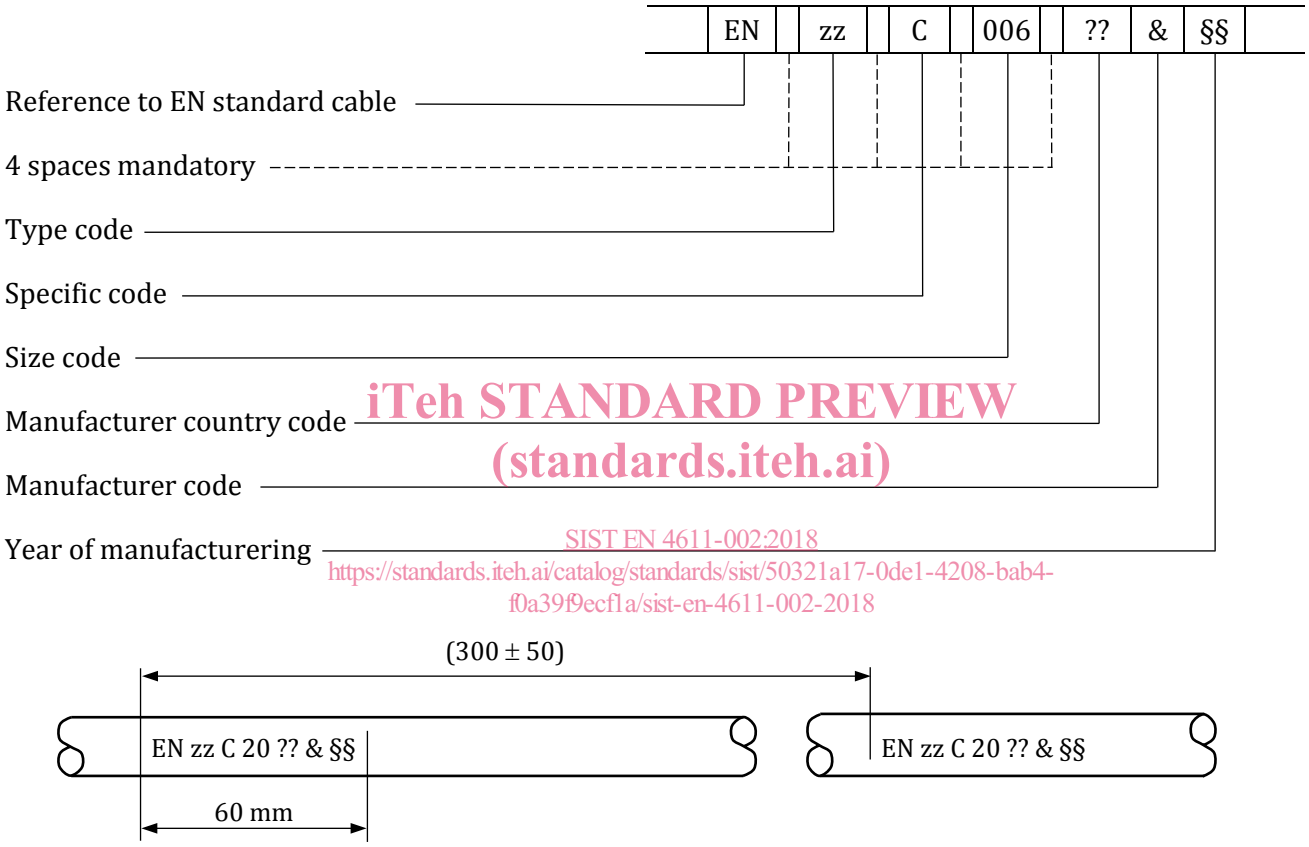
The identification and marking of cables by the manufacturer shall be in accordance with EN 2084.

As the designation, required for orders, is generally too long, for use in electrical drawings a shorter designation (without colour information) is given in TR 6058.

EXAMPLE

Designation: EN 4611-004A006P

Cross reference: XLETFE 20



For multicore cable with jacket, the marking shall be optional on core(s) and mandatory on jacket.

For multicore cable without jacket, each core shall be marked with his own designation.

The cables (single core or jacketed cable) shall be capable of being printed with user-applied UV laser markings according to EN 3838. Aggressive marking techniques are not permitted.

7 Technical specification

See EN 2084.