SLOVENSKI STANDARD
SIST EN 2266-008:2023

01-februar-2023

Nadomešča:
SIST EN 2266-008:2015

Aeronavtika - Električni kabli za splošno uporabo - Delovne temperature med –55 °C in 200 °C - 008. del: Družina DRP (dvožilni), DRT (trižilni), DRQ (štirižilni), večžilni, oplaščeni, z možnostjo UV-laserskega tiskanja - Standard za proizvod

Aerospace series - Cables, electrical, for general purpose - Operating temperatures between -55 °C and 200 °C - Part 008: DRP (pair) DRT (3 cores) DRQ (4 cores) family, multicore UV laser printable jacketed cable - Product standard

Luft- und Raumfahrt - Leitungen, elektrisch, für allgemeine Verwendung - Betriebstemperaturen zwischen -55 °C und 200 °C - Teil 008: DRP- (zweiadrig), DRT- (dreiadrig), DRQ- (vieradrig) Familie, mehradrige, UV-Laser-bedruckbare, ummantelte Leitungen - Produktnorm

Série aérospatiale - Câbles électriques d'usage général - Températures de fonctionnement comprises entre -55 °C et 200 °C - Partie 008 : DRP (paire) DRT (tierce) DRQ (quarte) multiconducteurs gainés marquables au laser UV - Norme de produit

Ta slovenski standard je istoveten z: **EN 2266-008:2022**

ICS:

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

SIST EN 2266-008:2023 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 2266-008

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ICS 49.060

Supersedes EN 2266-008:2015

English Version

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This European Standard was approved by CEN on 8 May 2022.

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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

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Contents

Page

European foreword

This document (EN 2266-008:2022) 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 document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

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.

This document supersedes EN 2266-008:2015.

The main changes with respect to the previous edition are listed in the following table.

Table 1 — Main changes introduced

prEN/EN number	Edition	Publication date	Modifications
prEN 2266-008	1	01/2014	-
	2	05/2021	Modification on some conditions of test (temperature). Change applicability on humidity test.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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

1 Scope

This document specifies the characteristics of UV laser printable multicore jacketed electrical cables for use in the on-board electrical systems of aircraft at operating temperatures between −55 °C and 200 °C.

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 2083, *Aerospace series — Copper or copper alloys conductors for electrical cables — Product standard*

EN 2235:2015, *Aerospace series — Single and multicore electrical cables, screened and jacketed — Technical specification*

EN 2266-002, *Aerospace series — Cables, electrical, for general purpose — Operating temperatures between -55 °C and 200 °C — Part 002: General*

EN 2267-002, *Aerospace series — Cables, electrical, for general purpose — Operating temperatures between −55 °C and 260 °C — Part 002: General*

EN 2267-009, *Aerospace series — Cables, electrical, for general purpose — Operating temperatures between −55 °C and 260 °C — Part 009: DRA family, single and multicore assembly — Product standard*

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

EN 3475-201, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 201: Visual examination*

EN 3475-202, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 202: Mass*

EN 3475-203, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 203: Dimensions*

EN 3475-301, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 301: Ohmic resistance per unit length*

EN 3475-302, *Aerospace series — Cable, electrical, aircraft use — Test methods — Part 302: Voltage proof test*

EN 3475-303, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 303: Insulation resistance*

EN 3475-304, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 304: Surface resistance*

EN 3475-306, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 306: Continuity of conductors*

EN 3475-401, *Aerospace series — Cables, electrical, aircraft use — Test Methods — Part 401: Accelerated ageing*

EN 3475-402, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 402: Shrinkage and delamination*

EN 3475-403, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 403: Delamination and blocking*

EN 3475-404, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 404: Thermal shock*

EN 3475-405, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 405: Bending at ambient temperature*

EN 3475-406, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 406: Cold bend test*

EN 3475-407, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 407: Flammability*

EN 3475-411, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 411: Resistance to fluids*

EN 3475-505, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 505: Tensile test on conductors and strands* [1]*)*

EN 3475-506, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 506: Plating continuity*

EN 3475-507, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 507: Adherence of plating*

EN 3475-508, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 508: Plating thickness*

EN 3475-601, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 601: Smoke density*

EN 3475-602, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 602: Toxicity*

EN 3475-701, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 701: Strippability and adherence of insulation to the conductor*

EN 3475-703, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 703: Permanence of manufacturer's marking*

EN 3475-705, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 705: Contrast measurement*

EN 3475-706, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 706: Laser markability*

EN 4434, *Aerospace series — Copper or copper alloy lightweight conductors for electrical cables — Product standard (Normal and tight tolerances)*

[1)] Published as ASD-STAN Standard at the date of publication of this document by AeroSpace and Defence industries Association of Europe — Standardization (ASD-STAN), https://www.asd-stan.org/.

3 Terms and definitions

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

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

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

4 Materials and construction

4.1 Materials

These cables shall consist of the following:

— cores according to EN 2267-009;

— number of cores 2 to 4.

2 to 4 core cables shall be twisted together according to EN 2235:2015.

Outer jacket:

— shall be defined to satisfy all required characteristics of Clause 5.

4.2 Construction

It shall be in accordance with EN 4434, EN 2083 and Table 2.

Table 2

Number of cores	Code for nominal section	Nominal section mm²	AWG [a]	Linear resistance at 20 °C Ω/km max.	External diameter mm max.	Mass kg/km max.
2	001	0,15	26	165	1,86	5,01
	002	0,25	24	117	2,10	6,54
	004	0,4	22	61,7	2,39	9,47
	006	0,6	20	34,1	2,91	15,28
	010	1	18	21,7	3,44	22,90
	012	1,2	16	14,9	4,02	31,78
	020	2	14	11,2	4,67	42,61
3	001	0,15	26	165	1,99	7,28
	002	0,25	24	117	2,24	9,50
		mm²		Ω/km max.	mm max.	kg/km max.
3	004	0,4	22	61,7	2,55	13,91
	006	0,6	20	34,1	3,12	22,55
	010	1	18	21,7	3,68	33,91
	012	1,2	16	14,9	4,30	47,15
	020	2	14	11,2	5,01	63,34
	030	3	12	6,99	5,98	99,57
4	001	0,15	26	165	2,22	9,56
	002	0,25	24	117	2,49	12,48
	004	0,4	22	61,7	2,87	18,34
	006	0,6	20	34,1	3,50	29,82
	010	1	18	21,7	4,15	44,92
	012	1,2	16	14,9	4,80	62,52
	020	2	14	11,2	5,48	84,06

[a] AWG = Closest American Wire Gauge.

4.3 Colours coding of cores

It shall be in accordance with EN 2267-002.

It shall be in accordance with EN 2235:2015, 4.3.2 for cabling.

5 Required characteristics

Tests according to EN 3475-100.

See Table 3.

Table 3 ***(1 of 2)***

EN 3475-	Designation of the test	Details
201	Visual examination	Applicable
202	Mass	Applicable, see Table 2.
203	Dimensions	Applicable, see Table 2.
301	Ohmic resistance per unit length	Applicable, see Table 2.
302	Voltage proof test	Applicable
303	Insulation resistance	Applicable
304	Surface resistance	Applicable
305	Overload resistance	Not applicable
306	Continuity of conductors	Applicable
401	Accelerated ageing	Applicable Temperature (230 ± 5) °C
402	Shrinkage and delamination	Applicable Temperature (230 ± 5) °C Maximum shrinkage at each end of cable: — for jacket: not applicable, — for core insulation: see EN 2267-009.
403	Delamination and blocking	Applicable Temperature (230 ± 5) °C
404	Thermal shock	Applicable Temperature (200 ± 5) °C Maximum shrinkage at each end of cable: — for jacket: not applicable, — for core insulation: see EN 2267-009.
405	Bending at ambient temperature	Applicable
406	Cold bend test	Applicable