



SLOVENSKI STANDARD
oSIST prEN 2854-002:2021
01-september-2021

Aeronavtika - Električni kabli za splošno uporabo - Delovne temperature med -55 °C in 260 °C - 002. del: Splošno

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

Luft- und Raumfahrt - Elektrische Leitungen für allgemeine Verwendung - Betriebstemperaturen zwischen -55 °C und 260 °C - Teil 002: Allgemeines

Série aérospatiale - Câbles électriques d'usage général - Températures de fonctionnement comprises entre -55 °C et 260 °C - Partie 002 : Généralités

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Ta slovenski standard je istoveten z: prEN 2854-002

ICS:

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

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en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 2854-002

June 2021

ICS 49.060

Will supersede EN 2854-002:2009

English Version

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

Série aérospatiale - Câbles électriques d'usage général -
Températures de fonctionnement comprises entre -55
°C et 260 °C - Partie 002 : Généralités

Luft- und Raumfahrt - Elektrische Leitungen für
allgemeine Verwendung - Betriebstemperaturen
zwischen -55 °C und 260 °C - Teil 002: Allgemeines

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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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 (prEN 2854-002:2021) 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 is currently submitted to the CEN Enquiry.

This document will supersede EN 2854-002:2009.

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prEN 2854-002:2021 (E)**1 Scope**

This document specifies the list of product standards and common characteristics of electrical cables for use in the on-board electrical systems of aircraft at operating temperatures between -55 °C and 260 °C (except otherwise specified in product document).

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 and copper alloys conductors for electrical cables — Product standard*

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 cables¹⁾*

TR 6058, *Aerospace series — Cable code identification list²⁾*

3 Terms and definitions

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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 List of product standards

EN 2854-003, *Aerospace series — Cables, electrical for general purpose — Operating temperatures between -55 °C and 260 °C — Part 003: Product standard.*

5 Material and construction**5.1 Materials**

These cable conductors shall be made of nickel-plated copper according to EN 2083 code D (except otherwise specified in product standards).

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), <http://www.asd-stan.org/>

²⁾ Published as ASD-STAN Technical Report at the date of publication of this document by AeroSpace and Defence industries Association of Europe — Standardization (ASD-STAN), <http://www.asd-stan.org/>

5.2 Construction

5.2.1 Number of cores

See Table 1.

Table 1

Number of cores	1	2	3	4	5	6	7	8	9	10
Code	A	B	C	D	E	F	G	H	J	K
Factor for overall dimensions	—	2,00	2,15	2,40	2,70	3,00	3,00	3,30	3,60	4,00

For 2 cores or more:

factor for mass: 1,03;

factor for ohmic resistance: 1,03.

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5.2.2 Colour coding of single core cables

See Table 2.

Table 2

Code	Colour ^a
A	Red (2)
B	Blue (6)
C	Yellow (4)
D	Green (5)
E	White (9)
F	Black (0)
G	Brown (1)
H	Orange (3)
J	Purple (7)
K	Grey (8)
L	
M	
N	
P	
Q	
R	Not yet allocated
S	
T	
U	
V	
W	

^a For information: international colour code

Preferred colour: white.

5.2.3 Colour coding of unscreened, unjacketed multicore cables

See Tables 3 and 4.

Table 3 — Code P

Number of cores in cables	Colours									
	Red	Blue	—	—	—	—	—	—	—	—
2	Red	Blue	—	—	—	—	—	—	—	—
3	Red	Blue	Yellow	—	—	—	—	—	—	—
4	Red	Blue	Yellow	Green	—	—	—	—	—	—
5	Red	Blue	Yellow	Green	White	—	—	—	—	—
6	Red	Blue	Yellow	Green	White	Black	—	—	—	—
7	Red	Blue	Yellow	Green	White	Black	Brown	—	—	—
8	Red	Blue	Yellow	Green	White	Black	Brown	Orange	—	—
9	Red	Blue	Yellow	Green	White	Black	Brown	Orange	Purple	—
10	Red	Blue	Yellow	Green	White	Black	Brown	Orange	Purple	Grey

Table 4 — Code R

Number of cores in cables	Colours			
	White	Blue	—	—
2	White	Blue	—	—
3	White	Blue	Yellow	—
4	White	Blue	Yellow	Green

6 Identification and marking

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

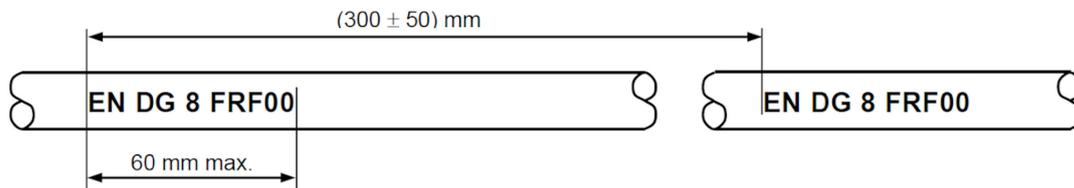
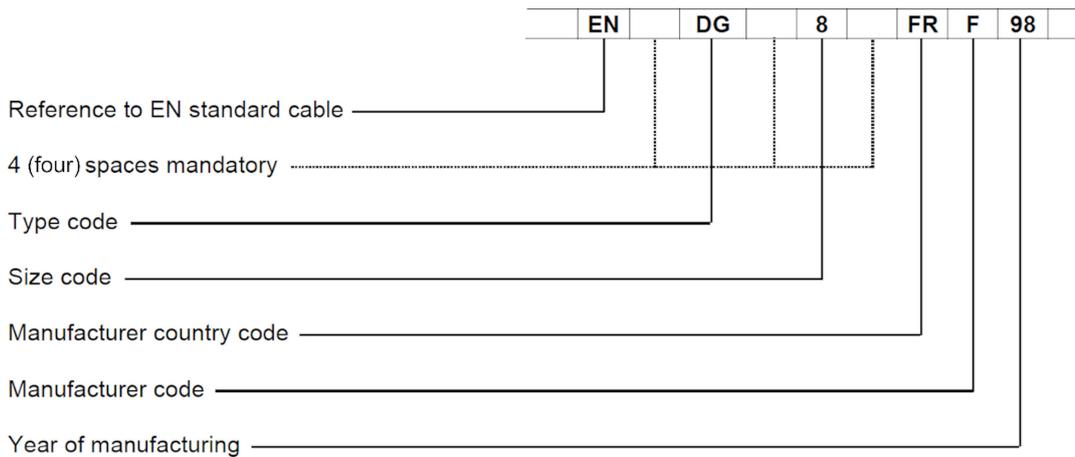
As the designation, required for orders, is generally too long, for use in electrical drawings a shorter cross designation (without colour information) is given in TR 6058 plus the corresponding AWG.

EXAMPLE Designation: EN 2854-003A090A

Cross reference: DG 8

This shorter designation is used for identification and marking as in the following example.

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For multicore cable, each core shall be marked with his own designation.

The cables shall be capable of being printed with the used-applied markings according to EN 3838.

7 Technical specification

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It shall be in accordance with EN 2084. [78620cc44b81/osist-pren-2854-002-2021](https://standards.iteh.ai/catalog/standards/sist/19caa0bf-f73c-4876-970b-78620cc44b81/osist-pren-2854-002-2021)