

ICS 49.060

CCS V 40



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 42043-2022

**Aerospace - Wire, aluminium alloy and copper-clad aluminium
conductors - General performance requirements**

Issued on: October 12, 2022

Implemented on: October 12, 2022

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

foreword

1 Scope

2 Normative references

3 Terms and Definitions

foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules of Standardization Documents"

drafted.

This document is equivalent to ISO 13832.2013 "General performance requirements for aluminum alloys and copper-clad aluminum conductors for aerospace wires".

The following minimal editorial changes have been made to this document.

--- Corrected the wrong range of nominal cross-sectional area in Chapter 1 "Scope";

--- Modified the error code in 4.5.1.

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the dimensions, electrical characteristics of aluminum alloy and copper clad aluminum (CCA) conductors for use in aircraft light duty cables and aerospace applications

and mechanical properties.

This document applies to stranded conductors with a nominal cross-sectional area ranging from 0.25mm² to 107mm².

The conductors of this document do not apply to conventional copper cables, fire resistant cables or thermally extendable cables. Copper cable conductors according to ISO 2635, resistant to

Fire cables are in accordance with ISO 1967 and thermocouple compensation cables are in accordance with ISO 8056-1.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

Glossary)

Note. GB/T 35851-2018 Terminology for aircraft cables and cable harnesses (ISO 8815:1994, IDT)

3 Terms and Definitions

The terms and definitions defined in ISO 8815 and the following apply to this document.

3.1

Conductor code

Numerical or textual code identifying conductor size and properties.

Note. Code is abbreviated in this document.

[Source. ISO 2635:2003, 3.1]

3.2

International wire gauge worldwide wire gauge; WWG

A marking system similar to the American Wire Gauge (AWG) system, which is an international marking of wire and cable sizes.

[Source. ISO 2635:2003, 3.2]

3.3

Copper-clad aluminum copper-clad aluminum; CCA

Meets the requirements of ASTM B566 class 15A, the aluminum core is continuously clad with copper plating.

NOTE. See Figure 2.