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

GB/T 35852-2018

**Dimensions and characteristics of conductors for general
purpose aircraft electrical cables and aerospace applications**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method identical to the ISO 2635.2003 "Conductor size of aircraft aircraft general cables and aerospace applications.

And features."

The Chinese documents that have a consistent correspondence with the normatively cited international documents in this standard are as follows.

--- GB/T 35851-2018 Aircraft cable and cable harness terminology (ISO 8815.1994).

This standard has made the following editorial changes.

---Modified the standard name;

--- This standard incorporates the content of amendment ISO 2635.2003/Amd.1.2017, outside the margins of the amended clause.

Positions are marked with vertical double lines (||).

This standard was proposed by China Aviation Industry Corporation.

This standard is under the jurisdiction of the National Aircraft Standardization Technical Committee (SAC/TC435).

This standard was drafted by Shaanxi Aviation Electric Co., Ltd., Hefei Jianghang Aircraft Equipment Co., Ltd., and China Aviation Comprehensive Technology Research Institute.

Research Institute, Guangzhou Kaiheng Special Wire & Cable Co., Ltd., Baosheng Technology Innovation Co., Ltd.

1 Scope

This standard specifies the size, electrical characteristics and mechanical properties of the conductors used in general cable and aerospace applications for aircraft.

This standard applies to stranded copper conductors with a nominal cross section of 0.12mm² to 107mm². This standard does not apply to fireproof cables or thermocouples

Compensation cable. The conductors of fireproof cables are in accordance with ISO 1967 and the thermocouple compensation cables are in accordance with ISO 8056-1.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

ISO 8815 aircraft cable and cable harness terminology

(Aircraft-Electricalcablesandcableharnesses-Vo-

Cabulary)

3 Terms and Definitions

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

3.1

Conductor code conductor code

A numeric or alphanumeric code that identifies the conductor size and attributes.

3.2

International wire gauge worldwidewiregauge;WWG

An identification system similar to the AWG system is an international designation of wire and cable dimensions.

4.1 General

The dimensions, resistance, mechanical properties and weight of the conductors shall conform to the values specified in Table 1 or Table 2. Table 2 applies to new designs.

4.2 Materials

4.2.1 Conductors with a nominal cross section of 0.12 mm² to 0.25 mm² shall be made of

high-strength copper alloys with a nominal cross-section greater than 0.25 mm².

The body should be made of electrical copper (such as ETP grade copper).

4.2.2 Conductors shall be made of materials that have not been used before. The materials shall be controlled strictly by the process.

4.2.3 No. 24 or smaller conductors shall be made of high-strength copper alloys. For larger gauge conductors, electrical copper shall be used.

4.2.4 Plating materials should meet the relevant requirements of Chapter 6.

4.2.5 Copper and copper alloy conductors may be classified as uncoated (code letter A), tin plated according to the detailed specifications of the conductors used and the thickness of the coating.

(code letter B), silver plated (code letter C) or nickel plated (letter code D), silver plating thickness should be at least 1.0µm, nickel plating thickness should be at least