



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

GB/T 25085.4-2020

**Road vehicles--Automotive cables - Part 4: Dimensions and
requirements for 30 V a. c. or 60 V d. c. single-core aluminium
conductor cables**

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Preface

GB/T 25085 "Road Vehicle Automotive Cable" is expected to be divided into 10 parts.

---Part 1.Vocabulary and design guide;

---Part 2.Test method;

---Part 3.Dimensions and requirements of AC 30V or DC 60V single-core copper conductor cables;

---Part 4.AC 30V or DC 60V single core aluminum conductor cable size and requirements;

---Part 5.Dimensions and requirements of AC 600V or DC 900V, AC 1000V or DC 1500V single-core copper conductor cables;

---Part 6.Dimensions and dimensions of AC 600V or DC 900V, AC 1000V or DC 1500V single-core aluminum conductor cables

Claim;

---Part 7.Dimension and size of shielded and unshielded multi-core and single-core copper conductor cables with AC 30V or DC 60V round sheath

Claim;

---Part 8.Dimensions and dimensions of shielded and unshielded multi-core and single-core aluminum conductor cables with AC 30V or DC 60V round sheath

Claim;

---Part 9.Shielded and unshielded for AC 600V or DC 900V, AC 1000V or DC 1500V circular sheath

The size and requirements of multi-core and single-core copper conductor cables;

---Part 10.Shielded and unshielded round sheaths of AC 600V or DC 900V, AC 1000V or DC 1500V

The size and requirements of multi-core and single-core aluminum conductor cables.

This part is Part 4 of GB/T 25085.

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

The translation method used in this part is equivalent to the adoption of ISO 19642-4.2019
`Road vehicles and automotive cables Part 4.AC 30V or direct

Dimensions and requirements of 60V single-core aluminum conductor cable.

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

---GB/T 228.1-2010 Tensile Test of Metallic Materials Part 1.Room Temperature Test Method (ISO 6892-1.2009, MOD)

This section has made the following editorial changes.

---Moved the warning of ISO 19642-4.2019 to 4.2 of this part;

--- Use "sqrt" instead of "x" (see Table 3);

--- Use "plus" instead of "" (see Table 3, 5.5.3, 5.5.4);

- Replace "x" with "-" (see Table 4, Table 6, Table 7, Table 8, Table A.1, Table A.2);
- Added some notes, giving reference information about relevant domestic standards (see 4.5 note 2, footnote a in Table 2);
- Added informative appendix NA "Product Model List";
- Revised references.

This part was proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This part is under the jurisdiction of the National Automotive Standardization Technical Committee (SAC/TC114).

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1 Scope

This part of GB/T 25085 specifies that the nominal system voltage for general-purpose road vehicles shall not exceed AC 30V or DC 60V.

The size and requirements of core aluminum conductor cables.

This section applies to single-core cables for road vehicles, as well as to cores in multi-core cables.

2 Normative references

The following documents are indispensable for the quotation of this document. For dated reference documents, only the dated version applies to this article

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

3 Terms and definitions

The terms and definitions defined by ISO 19642-1 apply to this document.

4.1 General test conditions

Should be tested in accordance with the provisions of Table 3 under the test conditions specified in ISO 19642-2.

If both parties agree to modify or change the test methods and requirements, all changes and modifications shall be recorded.

4.2 Safety precautions

The use of this section may involve hazardous materials, operations and equipment. This section is not intended to address possible problems related to the use of this section

All security issues. Users of this section are responsible for formulating appropriate safety regulations and determining the applicability of regulatory restrictions before use.

4.3 Voltage range

The upper limit of the cable voltage in this section is AC 30V and DC 60V.

4.4 Temperature class

The applicable temperature class of the aluminum conductor cable should meet the requirements of Table 1.

Table 1 Rated temperature class

4.5 Conductor material

The conductor shall consist of annealed or annealed compressed aluminum or aluminum alloy monofilaments. The requirements for a single conductor wire shall meet the requirements of Table 2 and

Material specification is completed. The elongation requirements shall be negotiated by the supplier and the buyer. All conductors of the finished cable should meet the resistance requirements of Table 7.

The monofilament of aluminum conductor shall be made of 1000 series aluminum or other alloys specified in EN573-1. The chemical composition should comply with EN573-3.

The requirements of Table 1 in 2013.

Note 1. See Appendix A for examples of twisted structures.

Note 2. The monofilament material and chemical composition of aluminum conductor can also refer to GB/T 16474-2011 and GB/T 3190-2008.

Table 2 Single filament characteristics after annealing

4.6 Conductor