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

GB/T 30551-2014

**Thermal-resistant aluminium alloy wire for overhead line
conductor**

架空绞线用耐热铝合金线

(English Translation)

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Heat resistance Annex A (informative) aluminum alloy wire

Appendix NA (informative) This standard specifies the product model and IEC 62004:2007 compliant products corresponding to the case of 10 models

Foreword

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

This standard uses the translation method identical with IEC 62004:2007 "overhead wire with heat-resistant aluminum alloy wire." Correspondence between the consistency of the standards of international documents and normative references of the following documents.

--- GB/T 3048.2-2007 electrical wire and cable performance test methods - Part 2. Test metallic conductor resistivity (IEC 60468. 1974, MOD).

For ease of use, this standard made the following editorial changes.

--- Modify the model representation of the heat-resistant aluminum alloy wire, expressed in Pinyin naming method, in order to be consistent with the existing standard series (See Section 3.2, Chapter 4, Chapter 5, Section 6 and Appendix A);

--- Added Appendix NA "This standard specifies the product model and IEC 62004:2007 corresponding to the specified product model case" (see Appendix NA).

The standard proposed by China Electrical Equipment Industrial Association.

The standard bare wire by the National Standardization Technical Committee (SAC/TC422) centralized.

1 Scope

This standard specifies the mechanical properties, electrical properties and heat resistance, heat-resistant aluminum alloy wire diameter range of commercial applications.

This standard applies to overhead transmission with heat-resistant aluminum alloy wire strands.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 17048-2009 overhead wire with a hard aluminum (IEC 60889. 1987, IDT) GB/T 23308-2009 overhead stranded aluminum - magnesium - silicon alloy round wire (IEC 60104. 1987, IDT) IEC 60468. 1974 Test method of resistivity of metallic materials (Method of measurement of resistivity of metallic materials)

3 Terms and Definitions

The following terms and definitions apply to this document.

Diameter

Measure twice in the direction of the same section and perpendicular to each other, taking the average of two measurements.

Note: For non-circular cross-section of the line, with the application of circular cross-section as the wire diameter equivalent diameter.

Type type

Heat-resistant aluminum alloy wire is defined as. "NRLH1" "NRLH2" "NRLH3" "NRLH4".

Heat-resistant aluminum alloy wire thermal-resistant aluminium alloy wire all types of aluminum - zirconium alloy wire, the operating temperature is higher than the traditional GB/T 23308-2009 listed in aluminum - magnesium - silicon alloy Overhead wire line and GB/T 17048-2009 listed in hard aluminum. Aluminum - zirconium alloy wire allows the operating temperature shown in Table 1.

4 Model

This standard contains the following line.

--- The maximum permissible continuous operating temperature of 150 °C heat-resistant aluminum alloy wire, model NRLH1;

- The maximum permissible continuous operating temperature of high-strength heat-resistant aluminum alloy wire 150 °C, model NRLH2;
- Maximum permissible continuous operating temperature of 210 °C ultra-resistant aluminum alloy wire, model NRLH3;
- The maximum permissible continuous operating temperature of 230 °C special heat-resistant aluminum alloy wire, model NRLH4.