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

GB/T 11017.2-2024

Replacing GB/T 11017.2-2014

**Power cables with cross-linked polyethylene insulation and
their accessories for rated voltage of 66 kV($U_m=72.5$ kV) and
110 kV ($U_m=126$ kV) - Part 2: Power cables**

额定电压66 kV ($U_m=72.5$ kV) 和110 kV ($U_m=126$ kV) 交联聚乙烯绝缘电力电
缆及其附件 第2部分: 电缆

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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 for standardization documents" Drafting. This document is GB/T 11017 "Rated voltage 66kV ($U_m=72.5\text{kV}$) and 110kV ($U_m=126\text{kV}$) cross-linked polyethylene insulation Power cables and their accessories" Part 2: GB/T 11017 has been published in the following three parts.

1. Test methods and requirements;

3. Cable accessories. This document replaces GB/T 11017.2-2014 "Rated voltage 110kV ($U_m=126\text{kV}$) cross-linked polyethylene insulated power cables and their Annex Part

2. Cables, compared with GB/T 11017.2-2014, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

--- Added the provisions and corresponding requirements for rated voltage 66kV ($U_m = 72.5\text{kV}$) (see Chapter 1,

4.1 and Chapter 6);

--- Added the code and requirements for flat aluminum sleeves (see 5.1, Table 1 and Table 3);

--- Added the code and requirements for flame retardant sheath and halogen-free low-smoke flame retardant sheath (see 5.1, Table 1 and 6.7);

--- Added cable combustion characteristics code and requirements (see 5.1, Table 1 and

Table 8);

--- Changed the technical requirements for conductors (see 6.1,

6.1 of the 2014 edition);

--- Increased the performance of semi-conductive buffer tape (see 6.4.1);

--- Changed the diameter requirements for shielded copper wire (see 6.5.2,

1 Scope

GB/T 11017.2-2024 is the Chinese national standard on power cables with cross-linked polyethylene insulation and their accessories for rated voltage of 66 kV ($U_m=72.5$ kV) and 110 kV ($U_m=126$ kV) - part 2: power cables, in the field of electrical engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 29 September 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 April 2025. Classification: ICS 29.060.20, CCS K13. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the basic structure, model name, and specifications of copper core and aluminum core cross-linked polyethylene insulated power cables with rated voltages of 66 kV and 110 kV. name, technical requirements, test and acceptance rules, packaging, transportation and storage. This document applies to the design, manufacture and application of single-core power cables with rated voltages of 66 kV and 110 kV under normal laying and operating conditions. test.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 3956 Cable conductors

GB/T 6995.3 Wire and cable identification marking method Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 approximate value The value is neither guaranteed nor checked.

Note. Usually used for calculation of other dimension values.

3.2 A composite sheath having a longitudinally wrapped metal tape or a longitudinally wrapped metal foil bonded to the non-metallic outer sheath of the cable, the metal tape (foil) of the composite sheath being bonded to the outer sheath of the cable. The seams are bonded by melting plastic or adhesive to form a watertight seal.

Note. Usually the metal layer is bonded to the polyethylene sheath to form a metal-composite polyethylene sheath.

4 Usage Features

4.1 Rated voltage Rated voltage is the reference voltage for cable design and electrical performance testing. This document uses U_0/U and U_m as symbols. The meanings of these symbols are as follows: