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

中华人民共和国国家标准

GB/T 12706.4-2008

Replace GB/T 12706.4-2002

**Power cables with extruded insulation and their accessories for rated
voltages from 1kV ($U_m=1.2\text{kV}$) up to 35kV($U_m=40.5\text{kV}$) - Part 4: Test
requirements on accessories for cables with rated voltages from
6kV($U_m=7.2\text{kV}$) up to 35kV($U_m=40.5\text{kV}$)**

**额定电压 1kV ($U_m=1.2\text{kV}$) 到 35kV ($U_m=40.5\text{kV}$) 挤包绝缘电力电缆及附件 第 4 部
分：额定电压 6kV ($U_m=7.2\text{kV}$) 到 35kV ($U_m=40.5\text{kV}$) 电力电缆附件试验要求**

(IEC 60502-4:2005 Power cables with extruded insulation and their
accessories for rated voltages from 1 kV ($U_m = 1,2 \text{ kV}$) up to 30 kV ($U_m = 36 \text{ kV}$)
– Part 4: Test requirements on accessories for cables with rated voltages from
6 kV ($U_m = 7,2 \text{ kV}$) up to 30 kV ($U_m = 36 \text{ kV}$), MOD)

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Foreword

GB/T 12706 *Power Cables with Extruded Insulation and Their Accessories for Rated Voltages from 1kV ($U_m=1.2\text{kV}$) to 35kV ($U_m=40.5\text{kV}$)* is divided into four parts:

- Part 1: Cables for Rated Voltages 1 kV ($U_m=1.2\text{kV}$) and 3kV ($U_m=3.6\text{kV}$);
- Part 2: Cables for Rated Voltages from 6 kV ($U_m=7.2\text{kV}$) up to 30kV ($U_m=36\text{kV}$);
- Part 3: Cables for Rated Voltage 35kV ($U_m=40.5\text{kV}$);
- Part 4: Test requirements on Accessories of Cables for Rated Voltages from 6kV ($U_m=7.2\text{kV}$) up to 35kV ($U_m=40.5\text{kV}$).

This part is Part 4 of GB/T 12706.

The amendments for this Part adopt IEC 60502-2:2005 *Power Cables with Extruded Insulation and Their Accessories for Rated Voltages from 1kV ($U_m=1.2\text{kV}$) up to 30kV ($U_m=36\text{kV}$)* Part 4: *Cables for Rated Voltages 6kV ($U_m=7.2\text{kV}$) up to 30kV ($U_m=36\text{kV}$)* second version (English version).

This Part is redrafted in accordance with IEC60502-4:2005. This Part, except adding Informative Annex B, its structure is same with IEC 60502-4:205.

Taking China's national situation into consideration, when the IEC 60502-4:2005 is adopted, some amendments are made for this Part; the relevant technical differences have been incorporated into the body and identify the involved terms on the margin of the page with single vertical line. The list of these technical differences and reasons are in the Annex B.

For easy of use, this Part also made the following editorial changes in adoption of IEC60502-4:2005:

- Modified the "this Standard" to "this Part";
- Deleted the Foreword of IEC 60502-4:2005;
- Use decimal point to replace commas “,” which used as decimal point;

**Power cables with extruded insulation and their accessories
for rated voltages from 1kV ($U_m=1.2\text{kV}$) up to 35kV($U_m=40.5\text{kV}$)**

**- Part 4: Test requirements on accessories for cables with
rated voltages from 6kV($U_m=7.2\text{kV}$) up to 35kV($U_m=40.5\text{kV}$)**

1 Scope

This part of GB/T 12706 specifies the test requirements for type testing of accessories for power cables with rated voltages from 3,6/6 (7,2) kV up to 26/35 (40.5) kV, complying with GB/T 12706.2-2008 or GB/T 12706.3-2008.

Accessories for special applications, such as aerial cables, submarine or ship cables or hazardous situations (explosive environments, fire resistant cables or seismic conditions), are not included.

Formerly, approvals of products now covered by this part have been achieved on the basis of national standards and specifications and/or the demonstration of satisfactory service performance. The publication of this part does not invalidate existing approvals. However, products approved according to these earlier standards or specifications cannot claim approval to this part unless specifically tested to it.

It is not necessary to repeat these tests, once successfully completed, unless changes are made in the materials, design or manufacturing process which might affect the performance characteristics.

Test methods are included in GB/T 18889-2002.

2 Normative References

The articles contained in the following documents have become this part of GB/T 12706 when they are quoted herein. For the dated documents so quoted, all the modifications (excluding corrections) or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to

this Standard.

GB/T 2900.10-2001 Electrotechnical vocabulary--Electric cables (IEC 60050(461): 1984, IDT)

GB/T 12706.2-2008 Power cables with extruded insulation and their accessories for rated voltages from 1kV ($U_m=1.2\text{kV}$) up to 35kV ($U_m=40.5\text{kV}$) - Part 2: Cables for rated voltages from 6kV($U_m=7.2\text{kV}$) up to 30kV($U_m=36\text{kV}$) (IEC 60502-2: 2005, Power cables with extruded insulation and their accessories for rated voltages from 1 kV ($U_m = 1,2 \text{ kV}$) up to 30 kV ($U_m = 36 \text{ kV}$) - Part 2: Cables for rated voltages from 6 kV ($U_m = 7,2 \text{ kV}$) up to 30 kV ($U_m = 36 \text{ kV}$))

GB/T 12706.3-2008 Power cables with extruded insulation and their accessories for rated voltages from 1kV ($U_m=1.2\text{kV}$) up to 35kV ($U_m=40.5\text{kV}$) - Part 3: Cables for rated voltage of 35kV($U_m=40.5\text{kV}$) (IEC 60055-1: 2005, Amendment 1 - Paper-insulated metal-sheathed cables for rated voltages up to 18/30 kV (with copper or aluminium conductors and excluding gas-pressure and oil-filled cables) - Part 1: Tests on cables and their accessories, MOD)

GB/T 18889-2002 Electric cables-test methods for accessories for power cables with rated voltage from 6kV($U_m=7.2\text{kV}$) up to 35kV($U_m=40.5\text{kV}$) (IEC 61442: 1997, Electric cables - Test methods for accessories for power cables with rated voltages from 6 kV ($U_m=7,2 \text{ kV}$) up to 30 kV ($U_m=36 \text{ kV}$))

JB/T 8996-1999 Guide to the selection of high-voltage cables (eqv IEC 60183: 1984)

3 Terms and definitions

For the purpose of this standard, the following terms and definitions as shown in GB/T 2900.10-2001 shall apply.

3.1

connector

metallic device to connect cable conductors together

3.2

termination

device fitted to the end of a cable to ensure electrical connection with other parts of the system and to maintain the insulation up to the point of connection

3.3

indoor termination

termination intended for use where it is not exposed to either solar radiation or weathering

3.4

outdoor termination

termination intended for use where it is exposed to either solar radiation or weathering or both

3.5

terminal box

air- or compound-filled box fully enclosing a termination

3.6

shrouded termination

indoor termination with additional insulation at the bushing connection and used in an air-filled terminal box

3.7

straight joint

accessory making a connection between two cables to form a continuous circuit

3.8



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