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

GB/T 25318-2019

**Locking devices for ball and socket couplings of string
insulator units - Dimensions and tests**

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1 .2005, MOD)

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Foreword

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

This standard replaces GB/T 25318-2010 "Dimensions and test of locking pins for ball and socket connection of insulator string components", and GB/T 25318-

Compared with .2010, the main technical changes are as follows.

--- Separate the "Scope" and "Normative Reference Documents" of Chapter 1 of GB/T 25318-2010 into separate chapters, and merge and change the "standard plan"

Write "Dimensions and General Rules" and "Experiment" chapters (see Chapter 1, Chapter 2, Chapter 4, Chapter 6, .2010 version 1.1, 1.2,

1.3);

--- Added normative references (see Chapter 2, 1.2 of the .2010 edition);

--- Added Chapter 3 "Terms and Definitions" and defined the terms "Lock Pin" and "Receiving Quality Limit" (see Chapter 3);

--- In Table 1, Table 2, Table 4, Table 6, supplemented the size data of connection marks 36 and 40 (see Table 1, Table 2, Table 4 and Table 6, .2010

Version of Table 1, Table 2, Table 4 and Table 6);

--- Change the connection mark 16 in Table 1, Table 2, Table 3, Table 4, Table 6 to 16B (see Table 1, Table 2, Table 3, Table 4 and Table 6, .2010

Version of Table 1, Table 2, Table 3, Table 4 and Table 6);

--- Changed the operation test judgment criterion of 3.5.5.2 of GB/T 25318-2010 to table form, added Table 7, and supplemented the connection

Mark the dimensional data of 36 and 40 (see Table 7, .2010. 3.5.5.2).

This standard uses the redrafting method to modify and adopt IEC 60372. 1984

"Dimensions and test of locking pins for ball and socket connection of insulator string elements.

Test.

Compared with IEC 60372. 1984, this standard has more structural adjustments. Appendix A lists the standard and IEC 60372. 1984.

List of chapter numbers.

There are technical differences between this standard and IEC 60372. 1984, and the terms related to these differences have passed through the margins on their outer margins

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--- Added Chapter 2 "Normative Reference Documents";

--- Added Chapter 3 "Terms and Definitions", as well as "Lock Pins" and "Receiving Quality Limits" terms and definitions (see Chapter 3);

--- In 4.1, add "Note 2. For V-type non-flexible insulator string insulators, in order to avoid uneven compression of the locking pin

After deformation affects the effectiveness of locking, appropriate measures should be taken. "This is because it has been shown in actual operation of V-shaped non-flexible insulator strings.

The phenomenon of uneven compression deformation of the locking pin has been seen;

--- The sizes of the connection marks 36 and 40 have been added to Table 1, Table 2, Table 4, Table 6, and Table 7, which is mainly because this standard requires

The requirements of GB/T 4056 and GB/T 7253 revision are coordinated;

--- In order to maintain the consistency and practicality of the measurement method, the text and notes of 10.1 in IEC 60372 are included in 6.2.2 of this standard

Unify and confirm the recommended hardness measurement methods;

--- According to the actual product connection size and measurement method, change the connection mark 16 in the table to 16B;

--- Added and adjusted the relevant content of "operational test" in 6.3.6, this test has been implemented in China, has rich experience, and can be related to

GB/T 1001.1 is coordinated.

This standard also makes the following editorial changes.

--- Incorporates the contents of the first amendment of IEC 60372..1991 and the second amendment of IEC 60372..2003.

This standard was proposed by the China Electrical Equipment Industry Association.

This standard is under the jurisdiction of the National Insulator Standardization Technical Committee (SAC/TC80).

This standard was drafted. Xi'an High Voltage Apparatus Research Institute Co., Ltd., China Electric Power Research Institute Co., Ltd., Dalian Power

Porcelain Group Transmission and Transformation Material Co., Ltd., Sichuan Yibin Global Group Co., Ltd., Suzhou Electric Porcelain Factory Co., Ltd., China Southern Power Grid

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1 Scope

This standard specifies the shape and standard size of the locking pin, test methods, determination criteria, and other dimensions used only as a guide for manufacturing.

This standard applies to the ball-and-socket connection of insulator string components in GB/T 4056 and the locking pins supplied separately on corresponding metal accessories.

When these lock pins are supplied with insulators or metal accessories, they should be considered as an integral part of the insulator or metal accessories

Minute. In this case, the relevant tests should be included in GB/T 1001.1. When required, a certificate of conformity shall be provided to prove the locking

Pins have been tested in accordance with the provisions of this standard. Locking pins are usually supplied with insulators or corresponding metal accessories.

This standard does not include the technical requirements of the material, but it is recommended that the surface of the material should not have an anti-corrosion layer. In addition, the material should not

Significant contact erosion (chemical reaction) occurs between the joints.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article

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

GB/T 1001.1 Insulators for overhead lines with a nominal voltage higher than 1000V. Part 1. Porcelain or glass insulators for AC systems

Component definition, test method and criterion (GB/T 1001.1-2003, IEC 60383-1..1993, MOD)

GB/T 2828.1 Sampling inspection procedures for counts. Part 1. Batch inspection inspection sampling plan retrieved by acceptance quality limit (AQL)

(GB/T 2828.1-2012, ISO 2859-1..1999, IDT)

GB/T 2900.8 Electrical term insulator (GB/T 2900.8-2009, IEC 60050-471..2007, IDT)

GB/T 4056 ball and socket connection size of insulator string components (GB/T 4056-2019, IEC 60120. 1984, MOD)

GB/T 4340.1 Vickers hardness test for metallic materials. Part 1. Test method (GB/T 4340.1-2009, ISO 6507-

1 .2005, MOD)

GB/T 4340.4-2009 Vickers hardness test for metallic materials. Part 4. Table of hardness values (ISO 6507-4..2005, IDT)

3 terms and definitions

The following terms and definitions defined in GB/T 2900.8, GB/T 1001.1, GB/T 4056 and GB/T 2828.1 apply to this

file.

3.1

Locking pin lockingdevice