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

GB/T 22077-2023

Replacing GB/T 22077-2008

Test method for creep of overhead conductors

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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 replaces GB/T 22077-2008 "Creep test method for overhead conductors": Compared with GB/T 22077-2008, except for structural adjustment

In addition to rectification and editorial changes, the main technical changes are as follows:

- Deleted the normative references (see Chapter 2, Chapter 2 of the:2008 edition);
- Changed the definition of loading time (see 3:5, 3:5 of the:2008 edition);
- Deleted the terms and definitions of creep testing machine and end (see 3:7 and 3:8 of the:2008 edition);
- Increased the terms and definitions of creep, normal temperature creep test and high temperature creep test (see 3:7, 3:8 and 3:9);
- Changed the requirements for test equipment (see Chapter 4, Chapter 4 of the:2008 edition);

- Changed the method of sample selection and preparation (see 5:1 and 5:2, 5:1 and 5:2 of the:2008 edition);
- Added the test temperature and heating method of the high temperature creep test (see 6:1);
- Added the temperature change of the high temperature creep test (see 6:2);
- Deleted the temperature compensation (see 6:3 of the:2008 edition);
- Changed the test load requirements (see 7:1, 7:1 of the:2008 edition);
- Increased high temperature creep test steps [see Chapter 8 c)];
- Changed the data record (see Chapter 9, Chapter 9 of the:2008 edition);
- Increased test report (see Chapter 11):

This document is modified to adopt IEC 61395:1998 "Creep Test Procedure for Stranded Aerial Conductors":

Compared with IEC 61395:1998, this document has made the following structural adjustments:

- 6:1 corresponds to the suspension section in Chapter 6 of IEC 61395:1998, and 6:2 corresponds to 6:1 of IEC 61395:1998;
- Added Chapter 11 "Test Report":

The technical differences between this document and IEC 61395:1998 and their reasons are as follows:

- Deleted the normative reference documents, this document is not limited to the overhead conductors specified in GB/T 1179, but also applies to standards in this field

Stranded wire products involved in other product standards in the system;

- Changed the definition of the term "loading time", deleted the terms "creep tester" and "end", added the term "creep" and "normal temperature

"creep test" and "high temperature creep test" to reflect the actual test operation and understanding of this revised content;

- Changed the accuracy requirements for the load loading device and displacement measuring device of the test equipment to ensure the reliability of the test results;

- Added the sample preparation method for crimping of fittings to reflect the actual test operation, making this document applicable to more overhead conductors

product;

- Added the requirements for high temperature creep test to meet the requirements of this

type of test for standardized documents, which is also the main content of the revision of this document

content one;

--- Added requirements for test reports, providing unified requirements for third-party testing agencies to issue test reports:

The following editorial changes have been made to this document:

--- In order to coordinate with existing standards, change the name of the standard to "Creep Test Method for Overhead Conductors":

Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents:

1 Scope

This document describes the test equipment, specimens, temperature and temperature changes, load and displacement measurements, test procedure for creep tests on overhead conductors:

procedures, data recording, data processing and test reporting:

This document applies to the uninterrupted creep test of earth conductors for overhead transmission lines:

2 Normative references

This document has no normative references:

3 Terms and Definitions

The following terms and definitions apply to this document:

3:1

Sample length samplelength

The total length of wire between two mounting ends:

3:2

gauge length gaugelength

The original length of the portion of wire used to test for creep:

3:3

Test temperature testtemperature

The average temperature of three pre-specified points within the gauge length; if there are more than three temperature measurement points, it is the uniformly distributed temperature measurement point within the gauge length

The average temperature of the hot spot:

3:4

Test load testload

The constant tension to which the wire is subjected during the test:

3:5

loading time loading time

The time from pre-applied test load to test load:

3:6

duration of test

The time from loading the test load to the end of the test:

3:7

creep creep

Permanent elongation of the conductor due to the test load:

3:8

Creep test of wire at 20°C: