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

GB/T 15166.3-2023

Replacing GB/T 15166.3-2008

High-voltage alternating-current fuses - Part 3: Expulsion fuses

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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 part 3 of GB/T 15166 "High Voltage AC Fuses". GB/T 15166 has published the following parts.

- Part 1. Terminology;
- Part 2. Current-limiting fuses;
- Part 3. Spray fuses;
- Part 4. Fuses for external protection of shunt capacitors;
- Part 5. Guidelines for the selection of fuses for high-voltage fuses used in motor circuits;

--- Part 6.Guidelines for the selection of fuses for high-voltage fuses for transformer circuits.

This document replaces GB/T 15166.3-2008 "High Voltage AC Fuses Part 3.Spray Fuses", and GB/T 15166.3-

Compared with.2008, except for structural adjustment and editorial changes, the main technical changes are as follows.

a) Added the term "load fuse" (see 3.3.3);

b) The terms "expected peak current", "Joule integral", "effective time", "expected transient recovery voltage (of the circuit)" and "fuse support" have been deleted.

Holder", "Fracture Distance (Fuse)", "Interchangeability of Fuses", "Rate Identification and Melting Rate of Fuses" (see.2008

versions 3.1.4, 3.1.10, 3.1.11, 3.1.16, 3.2.7, 3.3.4, 3.3.5 and 3.5);

c) Changed the limit of total solar radiation in normal use conditions and the preferred value of ambient air temperature (see 4.1, the.2008 edition

2.1);

d) Changed the relevant content of the fuse rating (see 6.1, Table 5, Table 6, 6.6.1 and 12.3.4, 5.1, Table 14,

Tables 15, 3.4 and 10.3.4);

e) Delete the limit value of the pre-arcing time-current characteristics of K-type and T-type fuses (see Table 11 and Table 12 of the.2008 edition);

f) Change the range of current values on both sides of the time-current characteristic curve from 10% to 20% at the actual point obtained by the test (see 5.7,

5.3 of the.2008 edition);

g) The relevant content of the standard value of transient recovery voltage of Class A and Class B fuses has been added (see Table 8 and Table 9);

h) Delete the standard value of transient recovery voltage for test mode 1, mode 2, mode 3 and mode 4 (see Table 4~

Table 10);

i) The relevant content of 60Hz has been added to the characteristics of the test circuit (see 7.6.1.3);

j) Added eight-year verification test items (see 7.1);

k) Deleted the radio interference voltage test for fuses with a rated voltage of 126kV and above (see 6.4.7 of the.2008 edition);

l) Added loop resistance measurement test (see 7.5.3) and switching load current test (see 7.10);

m) Changed the relevant content of the fuse characteristics of the same family series (see 7.6.3.1, 6.6.3.1 of the 2008 edition);

n) Change the number of tests in the fuse base mechanical test from 200 to 500 (see 7.8.2, 6.8.1 of the 2008 edition);

o) A special test for fuses has been added (see Chapter 8).

This document is modified to adopt IEC 60282-2:2008 "High Voltage Fuses Part 2: Spray Fuses".

Compared with IEC 60282-2:2008, this document has more adjustments in structure.

Comparison overview of structure number changes between two files

See Appendix A for the table.

The technical differences between this document and IEC 60282-2:2008 and their reasons are as follows.

a) Regarding the normative reference documents, this document has made adjustments with technical differences, and the adjustments are reflected in Chapter 2 "Specifications

In the "Reference Document", the specific adjustments are as follows.

* Replaced IEC 62271-100:2001 and its Amd1:2002 and

Amd2:2006 (see 7.6.2.2), to adapt to the technical conditions of our country and update the referenced standard in the original text as

IEC 62271-100:2008;

* IEC 60898-1:2002 is replaced by GB/T 10963.1-2020 referenced normatively to adapt to the technical conditions of our country

And updated the referenced standard in the original text as IEC 60898-1:2015;

* Replaced IEC 60694:1996 and its Amd1:2000 and Amd2 with the normatively referenced GB/T 11022-2020

2001 (see 7.4.1 and 12.3.5), in order to adapt to the technical conditions of our country and update the referenced standard in the original text as

IEC 62271-1:2017;

* Replaced IEC 60060-1:1989 (see 7.4 and 8.2.4) with the normatively referenced GB/T 16927.1-2011 to accommodate

my country's technical conditions and updated the referenced standard in the original text