

ICS 29.120.40
CCS K 45

DL

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

DL/T 640-2019

Replacing DL/T 640-1997

**High voltage AC drop fuse
(English Translation)**

Issued on: June 4, 2019

Implemented on: October 1, 2019

Issued by: National Energy Administration

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Foreword

This standard is based on the content of IEC 60282-2:2008 "High-Voltage Fuses Part 2 Jet Fuses" to DL/T 640-1997 "Household "External AC high-voltage drop-out fuses and fuse parts ordering technical conditions" were comprehensively revised. But in some content, according to the power system of our country the actual use requirements have been modified and supplemented.

The main differences between this standard and IEC 60282-2:2008.

--The minimum ambient temperature for normal use environmental conditions, according to my country's regional conditions, in accordance with my country's power industry standards.

--According to the actual rated insulation level of the domestic power system, in accordance with my country's power industry standards.

--The rated voltage is based on the actual domestic voltage level, which is specified in this standard as 3.6kV~72.5kV.

--The name of the standard has been changed from "High Voltage Fuse Part 2: Jet Fuse" to "High Voltage AC Drop Fuse".

--Added related terms, such as rated breaking current, minimum breaking current, rated switching load current, transfer current, isolation fracture, Electric clearance, main contact, pressure relief cap, arc extinguishing tube, auxiliary arc extinguishing tube, etc.

- Supplement the load current and related requirements of the load fuse opening and closing.

- Added Chapter 8, Chapter 9, Chapter 10, Chapter 11 and Chapter 12 and related content.

-Supplements Appendix A, Appendix B, Appendix C, Appendix D and related content.

The main differences between this standard and DL/T 640-1997.

--The name of the standard has been changed from "Technical Conditions for Ordering Outdoor AC High Voltage Drop-out Fuses and Fuse Parts" to "High Voltage AC Dropout Falling fuse".

--Edit format change, the chapter number of this standard is consistent with DL/T 593-2016, a total of 12 chapters (the original standard has 8 chapters). This standard is cancelled the original standard has a large number of suspended paragraphs, and titles are added after the clause number.

--Scope. Delete "This standard can be used as the basis for the selection and acceptance of fuses for manufacturing, technical supervision and use departments." - Normative references. delete GB 763, GB 3309 and other standards, GB 3804 and other changes in the year number, supplement related standards.

--Chapter 3 Terms and Definitions. The following terms and definitions have been added.

- a) 3.1 Electrical characteristics, add 3 terms. rated value, rated parameter, expected transient recovery voltage (loop);
- b) 3.2 Fuse and its components, add 4 terms. fuse, fuse support, replaceable fuse, reinstallation unit;
- c) 3.3 Additional terms, add 2 terms. fuse rate identification and fuse interchangeability.

--Chapter 5 Design and Structure.

- a) Removed all suspended paragraphs and added clause titles. For example, 5.1 structure and components, 5.2 wiring terminals, 5.3 insulators, 5.4 Interchangeability, 5.5 Mechanical requirements, 5.6 Creepage distance, 5.7 Corrosion, 5.8 Pre-arc time-current characteristics, 5.9 Temperature and temperature rise, 5.10 opening and closing capacity;
- b) The fuse structure diagram is supplemented with the fuse structure diagram without switching load current device;
- c) The matched insulators supplement the composite insulators and related requirements;
- d) Added interchangeability and related requirements;
- e) Added creepage distance and related requirements;
- f) Corrosion and related requirements have been supplemented;
- g) Supplement the relevant requirements of the maximum allowable temperature and allowable temperature rise of the parts, materials and media of the fuse except the melt;
- h) Added load current and related requirements for switching load fuse.

--Chapter 6 Type Test.

- a) Change "normally produced products should be type tested every 3 to 5 years" it means "normally produced products shall undergo a type test every 8 years";
- b) Supplement the relevant requirements of the type test report;
- c) Supplement the common test requirements for all type tests;
- d) The appearance and size inspection and contact performance inspection in the type test items are deleted;