

# TECHNICAL SPECIFICATION

**Selection and dimensioning of high-voltage insulators intended for use in polluted conditions –  
Part 2: Ceramic and glass insulators for a.c. systems**



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INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SELECTION AND DIMENSIONING OF HIGH-VOLTAGE INSULATORS  
INTENDED FOR USE IN POLLUTED CONDITIONS –****Part 2: Ceramic and glass insulators for a.c. systems**

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Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC/TS 60815-2, which is a technical specification, has been prepared by technical committee 36: Insulators.

This first edition of IEC/TS 60815-2, together with IEC/TS 60815-1, cancels and replaces IEC/TR 60815, which was issued as a technical report in 1986. It constitutes a technical

revision and now has the status of a technical specification. The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
36/265/DTS	36/271A/RVC

Full information on the voting for the approval of this technical specification can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2

A list of all the parts in the future IEC 60815 series, under the general title *Selection and dimensioning of high-voltage insulators intended for use in polluted conditions*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

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# SELECTION AND DIMENSIONING OF HIGH-VOLTAGE INSULATORS INTENDED FOR USE IN POLLUTED CONDITIONS –

## Part 2: Ceramic and glass insulators for a.c. systems

### 1 Scope and object

IEC/TS 60815-1, which is a technical specification, is applicable to the selection of ceramic and glass insulators for a.c. systems, and the determination of their relevant dimensions, to be used in high-voltage systems with respect to pollution.

This part of IEC 60815 gives specific guidelines and principles to arrive at an informed judgement on the probable behaviour of a given insulator in certain pollution environments.

The basis for the structure and approach of this part of IEC 60815 is fully explained in IEC/TS 60815-1.

The object of this technical specification is to give the user means to:

- determine the reference unified specific creepage distance (RUSCD) from site pollution severity (SPS) class;
- evaluate the suitability of different insulator profiles;
- determine the necessary USCD by applying corrections for insulator shape, size, position, etc. to the RUSCD;
- if required, determine the appropriate test methods and parameters to verify the performance of the selected insulators.

### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050-471, *International Electrotechnical Vocabulary – Part 471: Insulators*

IEC 60507, *Artificial pollution tests on high-voltage insulators to be used on a.c. systems*

IEC/TS 60815-1, *Selection and dimensioning of high-voltage insulators for polluted conditions – Part 1: Definitions information and general principles*

### 3 Terms, definitions and abbreviations

For the purposes of this document, the following terms, definitions and abbreviations apply. The definitions given below are those which either do not appear in IEC 60050-471 or differ from those given in IEC 60050-471.