

# TECHNICAL SPECIFICATION

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**Selection and dimensioning of high-voltage insulators intended for use in  
polluted conditions –  
Part 1: Definitions, information and general principles**





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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

#### Part 1: Definitions, information and general principles

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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 60815-1, which is a technical specification, has been prepared by IEC technical committee 36: Insulators.

This first edition of 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 following major changes have been made with respect to IEC/TR 60815:

- Encouragement of the use of site pollution severity measurements, preferably over at least a year, in order to classify a site instead of the previous qualitative assessment (see below).
- Recognition that “solid” pollution on insulators has two components, one soluble quantified by ESDD, the other insoluble quantified by NSDD.
- Recognition that in some cases measurement of layer conductivity should be used for SPS determination.
- Use of the results of natural and artificial pollution tests to help with dimensioning and to gain more experience in order to promote future studies to establish a correlation between site and laboratory severities.
- Recognition that creepage length is not always the sole determining parameter.
- Recognition of the influence other geometry parameters and of the varying importance of parameters according to the size, type and material of insulators.
- Recognition of the varying importance of parameters according to the type of pollution.
- The adoption of correction factors to attempt to take into account the influence of the above pollution and insulator parameters.

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
36/264/DTS	36/270/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.