TECHNICAL REPORT

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Insulation co-ordination –

Part 4: Computational guide to insulation co-ordination and modelling of electrical networks

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FOREWORD

The main task of IEC technical committees is to prepare International Standards. However, a technical committee may propose the publication of a technical report when it has collected data of a different kind from that which is normally published as an International Standard, for example "state of the art".

IEC 60071-4, which is a technical report, has been prepared by IEC technical committee 28: Insulation co-ordination.

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

Enquiry draft	Report on voting
28/156/DTR	28/158/RVC

Full information on the voting for the approval of this technical report 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.

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- withdrawn;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 technical report may be issued at a later date.

INSULATION CO-ORDINATION –

Part 4: Computational guide to insulation co-ordination and modelling of electrical networks

1 Scope and object

This technical report gives guidance on conducting insulation co-ordination studies which propose internationally recognized recommendations

- for the numerical modelling of electrical systems, and
- for the implementation of deterministic and probabilistic methods adapted to the use of numerical programmes.

Its object is to give information in terms of methods, modelling and examples, allowing for the application of the approaches presented in IEC 60071-2, and for the selection of insulation levels of equipment or installations, as defined in IEC 60071-1.

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 60060-1:1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60071-1:1993*, Insulation co-ordination – Part 1: Definitions, principles and rules*

IEC 60071-2:1996*, Insulation co-ordination – Part 2: Application guide*

IEC 60076-8:1997*, Power transformers – Part 8: Application guide*

IEC 60099-4:1991, *Surge arresters – Part 4: Metal-oxide surge arresters without gaps for a.c. systems* [1]

IEC 61233:1994*, High-voltage alternating current circuit-breakers – Inductive load switching*

[1] A consolidated edition exists, published in 2001, which incorporates the current edition, plus its amendment 1 (1998) and amendment 2 (2001).