

TECHNICAL REPORT

IEC TR 60071-4

First edition
2004-06

Insulation co-ordination –

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

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CONTENTS

FOREWORD.....	7
1 Scope and object.....	9
2 Normative references.....	9
3 Terms and definitions	9
4 List of symbols and acronyms	12
5 Types of overvoltages.....	12
6 Types of studies	13
6.1 Temporary overvoltages (TOV).....	14
6.2 Slow-front overvoltages (SFO).....	14
6.3 Fast-front overvoltages (FFO).....	15
6.4 Very-fast-front overvoltages (VFFO).....	15
7 Representation of network components and numerical considerations	15
7.1 General	15
7.2 Numerical considerations.....	15
7.3 Representation of overhead lines and underground cables	18
7.4 Representation of network components when computing temporary overvoltages	19
7.5 Representation of network components when computing slow-front overvoltages	25
7.6 Representation of network components when computing fast-front transients	30
7.7 Representation of network components when computing very-fast-front overvoltages	42
8 Temporary overvoltages analysis	44
8.1 General	44
8.2 Fast estimate of temporary overvoltages	45
8.3 Detailed calculation of temporary overvoltages [2], [9].....	45
9 Slow-front overvoltages analysis	48
9.1 General	48
9.2 Fast methodology to conduct SFO studies	48
9.3 Method to be employed.....	49
9.4 Guideline to conduct detailed statistical methods	49
10 Fast-front overvoltages analysis.....	52
10.1 General	52
10.2 Guideline to apply statistical and semi-statistical methods.....	53
11 Very-fast-front overvoltage analysis	58
11.1 General	58
11.2 Goal of the studies to be performed	58
11.3 Origin and typology of VFFO	58
11.4 Guideline to perform studies	60
12 Test cases.....	60
12.1 General	60
12.2 Case 1: TOV on a large transmission system including long lines	60
12.3 Case 2 (SFO) – Energization of a 500 kV line	68
12.4 Case 3 (FFO) – Lightning protection of a 500 kV GIS substation	73
12.5 Case 4 (VFFO) – Simulation of transients in a 765 kV GIS [51]	80

Annex A (informative) Representation of overhead lines and underground cables	86
Annex B (informative) Arc modelling: the physics of the circuit-breaker	90
Annex C (informative) Probabilistic methods for computing lightning-related risk of failure of power system apparatus	93
Annex D (informative) Test case 5 (TOV) – Resonance between a line and a reactor in a 400/220 kV transmission system	99
Annex E (informative) Test case 6 (SFO) – Evaluation of the risk of failure of a gas-insulated line due to SFO	105
Annex F (informative) Test case 7 (FFO) – High-frequency arc extinction when switching a reactor	113
Bibliography	116
Figure 1 – Types of overvoltages (excepted very-fast-front overvoltages).....	12
Figure 2 – Damping resistor applied to an inductance	17
Figure 3 – Damping resistor applied to a capacitance	17
Figure 4 – Example of assumption for the steady-state calculation of a non-linear element.....	17
Figure 5 – AC-voltage equivalent circuit.....	19
Figure 6 – Dynamic source modelling	20
Figure 7 – Linear network equivalent	21
Figure 8 – Representation of load in [56]	24
Figure 9 – Representation of the synchronous machine	26
Figure 10 – Diagram showing double distribution used for statistical switches	29
Figure 11 – Multi-story transmission tower [16], $H = l_1 + l_2 + l_3 + l_4$	31
Figure 12 – Example of a corona branch model	33
Figure 13 – Example of volt-time curve.....	34
Figure 14 – Double ramp shape.....	38
Figure 15 – CIGRE concave shape	39
Figure 16 – Simplified model of earthing electrode.....	41
Figure 17 – Example of a one-substation-deep network modelling	51
Figure 18 – Example of a two-substation-deep network modelling.....	51
Figure 19 – Application of statistical or semi-statistical methods	53
Figure 20 – Application of the electro-geometric model.....	56
Figure 21 – Limit function for the two random variables considered: the maximum value of the lightning current and the disruptive voltage	57
Figure 22 – At the GIS-air interface: coupling between enclosure and earth (Z_3), between overhead line and earth (Z_2) and between bus conductor and enclosure (Z_1) [33]	59
Figure 23 – Single-line diagram of the test-case system	62
Figure 24 – TOV at CHM7, LVD7 and CHE7 from system transient stability simulation.....	63
Figure 25 – Generator frequencies at generating centres Nos. 1, 2 and 3 from system transient stability simulation	64
Figure 26 – Block diagram of dynamic source model [55].....	65
Figure 27 – TOV at LVD7 – Electromagnetic transient simulation with 588 kV and 612 kV permanent surge arresters.....	66

Figure 28 – TOV at CHM7 – Electromagnetic transient simulation with 588 kV and 612 kV permanent surge arresters.....	67
Figure 29 – TOV at LVD7 – Electromagnetic transient simulation with 484 kV switched metal-oxide surge arresters.....	67
Figure 30 – TOV at CHM7 – Electromagnetic transient simulation with 484 kV switched metal-oxide surge arresters.....	67
Figure 31 – Representation of the system.....	68
Figure 32 – Auxiliary contact and main	70
Figure 33 – An example of cumulative probability function of phase-to-earth overvoltages and of discharge probability of insulation in a configuration with trapped charges and insertion resistors.....	72
Figure 34 – Number of failure for 1 000 operations versus the withstand voltage of the insulation	72
Figure 35 – Schematic diagram of a 500 kV GIS substation intended for lightning studies.....	74
Figure 36 – Waveshape of the lightning stroke current.....	75
Figure 37 – Response surface approximation (failure and safe-state representation for one GIS section (node))	77
Figure 38 – Limit-state representation in the probability space of the physical variables Risk evaluation	79
Figure 39 – Single-line diagram of a 765 kV GIS with a closing disconnecter	81
Figure 40 – Simulation scheme of the 765 kV GIS part involved in the transient phenomena of interest.....	81
Figure 41 – 4 ns ramp	84
Figure 42 – Switch operation	85
Figure A.1 – Pi-model.....	86
Figure A.2 – Representation of the single conductor line.....	87
Figure B.1 – SF ₆ circuit-breaker switching	91
Figure C.1 – Example of a failure domain	96
Figure D.1 – The line and the reactance are energized at the same time.....	99
Figure D.2 – Energization configuration of the line minimizing the risk of temporary overvoltage	100
Figure D.3 – Malfunction of a circuit-breaker pole during energization of a transformer	102
Figure D.4 – Voltage in substation B phase A whose pole has not closed.....	103
Figure D.5 – Voltage in substation B phase B whose pole closed correctly	103
Figure D.6 – Voltage in substation B phase A where the breaker failed to close (configuration of Figure D.2).....	104
Figure E.1 – Electric circuit used to perform closing overvoltage calculations	105
Figure E.2 – Calculated overvoltage distribution – Two estimated Gauss probability functions resulting from two different fitting criteria (the $U_{2\%}$ and $U_{10\%}$ guarantees a good fitting of the most dangerous overvoltages).....	107
Figure E.3 – Example of switching overvoltage between phases A and B	109
Figure E.4 – Voltage distribution along the GIL (ER-energization ED-energization under single-phase fault ChPg-trapped charges)	110
Figure F.1 – Test circuit (Copyright1998 IEEE [48])	113
Figure F.2 – Terminal voltage and current of GCB model (Copyright 1998 IEEE [48]).....	113
Figure F.3 – Measured arc parameter (Copyright 1998 IEEE [48]).....	114

Figure F.4 – Circuit used for simulation	114
Figure F.5 – Comparison between measured and calculated results (Copyright 1998 IEEE [48])	115
Table 1 – Classes and shapes of overvoltages – Standard voltage shapes and standard withstand tests	13
Table 2 – Correspondence between events and most critical types of overvoltages generated	14
Table 3 – Application and limitation of current overhead line and underground cable models	18
Table 4 – Values of U_0 , k , DE for different configurations proposed by [59]	35
Table 5 – Minimum transformer capacitance to earth taken from [44]	37
Table 6 – Typical transformer capacitance to earth taken from [28]	37
Table 7 – Circuit-breaker capacitance to earth taken from [28]	37
Table 8 – Representation of the first negative downward strokes	40
Table 9 – Time to half-value of the first negative downward strokes	40
Table 10 – Representation of the negative downward subsequent strokes	40
Table 11 – Time to half-value of negative downward subsequent strokes	40
Table 12 – Representation of components in VFFO studies	43
Table 13 – Types of approach to perform FFO studies	52
Table 14 – Source side parameters	69
Table 15 – Characteristics of the surge arresters	69
Table 16 – Characteristics of the shunt reactor	69
Table 17 – Capacitance of circuit-breaker	70
Table 18 – Trapped charges	70
Table 19 – System configurations	71
Table 20 – Recorded overvoltages	71
Table 21 – Number of failures for 1 000 operations	72
Table 22 – Modelling of the system	76
Table 23 – Data used for the application of the EGM	76
Table 24 – Crest-current distribution	77
Table 25 – Number of strikes terminating on the different sections of the two incoming overhead transmission lines	77
Table 26 – Parameters of GIS disruptive voltage distribution and lightning crest-current distribution	78
Table 27 – FORM risk estimations (tower footing resistance = 10 Ω)	79
Table 28 – Failure rate estimation for the GIS11	80
Table 29 – Representation of GIS components – Data of the 765 kV GIS	82
Table D.1 – Line parameters	100
Table D.2 – 400 /220/33 kV transformer	101
Table D.3 – 220 /13,8 kV transformer	101
Table D.4 – Points of current and flux of 400 /220/33 kV transformer	101
Table D.5 – Points of current and flux of 220 /13,8 kV transformer	101
Table D.6 – Points of current and flux of 400 kV /150 MVA	102
Table E.1 – Parameters of the power supply	105

Table E.2 – Standard deviation and U_{50M} for different lengths (SIWV = 1 050 kV).....	108
Table E.3 – Standard deviation and U_{50M} for different lengths (SIWV = 950 kV).....	108
Table E.4 – Standard deviation and U_{50M} for different lengths (SIWV = 850 kV).....	108
Table E.5 – Statistical overvoltages $U_{2\%}$ and $U_{10\%}$ for every considered configuration	110
Table E.6 – Risks for every considered configuration.....	111
Table E.7 – Number of dielectric breakdowns over 20 000 operations for every configuration	112

INTERNATIONAL ELECTROTECHNICAL COMMISSION

INSULATION CO-ORDINATION –**Part 4: Computational guide to insulation co-ordination
and modelling of electrical networks**

FOREWORD

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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).