

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



**Low-voltage surge protective devices –  
Part 11: Surge protective devices connected to low-voltage power systems –  
Requirements and test methods**

**Parafoudres basse tension –  
Partie 11: Parafoudres connectés aux systèmes basse tension – Exigences et  
méthodes d'essai**



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## CONTENTS

FOREWORD.....	7
INTRODUCTION.....	9
1 Scope.....	10
2 Normative references .....	10
3 Terms, definitions and abbreviations .....	10
3.1 Terms and definitions .....	11
3.2 Abbreviations .....	16
4 Service conditions .....	18
4.1 Frequency .....	18
4.2 Voltage.....	18
4.3 Air pressure and altitude .....	18
4.4 Temperatures.....	18
4.5 Humidity.....	18
5 Classification.....	18
5.1 Number of ports .....	18
5.1.1 One .....	18
5.1.2 Two .....	18
5.2 SPD design .....	18
5.2.1 Voltage switching .....	18
5.2.2 Voltage limiting.....	18
5.2.3 Combination .....	18
5.3 Class I, II and III tests .....	18
5.4 Location .....	19
5.4.1 Indoor.....	19
5.4.2 Outdoor .....	19
5.5 Accessibility .....	19
5.5.1 Accessible.....	19
5.5.2 Inaccessible .....	19
5.6 Mounting method.....	19
5.6.1 Fixed .....	19
5.6.2 Portable.....	19
5.7 Disconnectors (including overcurrent protection) .....	19
5.7.1 Location .....	19
5.7.2 Protection functions.....	19
5.8 Degree of protection provided by enclosures.....	19
5.9 Temperature and humidity range .....	20
5.9.1 Normal .....	20
5.9.2 Extended.....	20
5.10 Power system.....	20
5.10.1 AC between 47 Hz and 63 Hz.....	20
5.10.2 AC other than the range of 47 Hz to 63 Hz .....	20
5.11 Multipole SPD .....	20
5.12 SPD failure behaviour .....	20
5.12.1 open circuit (standard type SPD) .....	20
5.12.2 short-circuit (short-circuiting type SPD) .....	20

6	Preferred values for SPD	20
6.1	Preferred values of impulse discharge current $I_{imp}$ for class I tests	20
6.2	Preferred values of nominal discharge current for class II tests $I_n$	20
6.3	Preferred values of open-circuit voltage for class III tests $U_{oc}$	20
6.4	Preferred values of voltage protection level $U_p$	20
6.5	Preferred values of r.m.s. maximum continuous operating voltage $U_c$	20
7	Requirements	21
7.1	General requirements	21
7.1.1	Identification	21
7.1.2	Marking	22
7.2	Electrical requirements	22
7.2.1	Protection against direct contact	22
7.2.2	Residual current $I_{pE}$	23
7.2.3	Voltage protection level $U_p$	23
7.2.4	Operating duty	23
7.2.5	Disconnectors and status indicators	23
7.2.6	Insulation resistance	24
7.2.7	Dielectric withstand	24
7.2.8	Behaviour under Temporary Overvoltages	24
7.3	Mechanical requirements	25
7.3.1	Mounting	25
7.3.2	Screws, current carrying parts and connections	25
7.3.3	External connections	25
7.3.4	Air clearances and creepage distances	27
7.3.5	Mechanical strength	27
7.4	Environmental and material requirements	27
7.4.1	Protection provided by enclosure (IP code)	27
7.4.2	Heat resistance	27
7.4.3	Fire resistance	27
7.4.4	Tracking resistance	27
7.4.5	Electromagnetic compatibility	28
7.5	Additional requirements for specific SPD designs	28
7.5.1	Two port SPDs and one port SPDs with separate input/output terminals	28
7.5.2	Environmental tests for outdoor SPDs	28
7.5.3	SPDs with separate isolated circuits	28
7.5.4	Short-circuiting type SPDs	29
7.6	Additional requirements as may be declared by the manufacturer	29
7.6.1	One-port and two-port SPDs	29
7.6.2	Two port SPDs only	29
8	Type tests	29
8.1	General testing procedures	30
8.1.1	Impulse discharge current used for class I additional duty test	36
8.1.2	Current impulse used for class I and class II residual voltage and operating duty tests	36
8.1.3	Voltage impulse used for class I and II sparkover tests	37
8.1.4	Combination wave used for class III tests	37
8.2	Indelibility of markings	40
8.3	Electrical tests	40

8.3.1	Protection against direct contact.....	40
8.3.2	Residual current $I_{PE}$ .....	40
8.3.3	Measured limiting voltage.....	41
8.3.4	Operating duty test.....	44
8.3.5	Disconnectors and safety performance of overstressed SPDs.....	48
8.3.6	Insulation resistance.....	54
8.3.7	Dielectric withstand.....	55
8.3.8	Behaviour under Temporary Overvoltages (TOVs).....	56
8.4	Mechanical tests.....	60
8.4.1	Reliability of screws, current-carrying parts and connections.....	60
8.4.2	Terminals for external conductors.....	61
8.4.3	Verification of air clearances and creepage distances.....	65
8.4.4	Mechanical strength.....	68
8.5	Environmental and material tests.....	72
8.5.1	Resistance to ingress of solid objects and to harmful ingress of water.....	72
8.5.2	Heat resistance.....	72
8.5.3	Ball pressure test.....	73
8.5.4	Resistance to abnormal heat and fire.....	74
8.5.5	Tracking resistance.....	75
8.6	Additional tests for specific SPD designs.....	75
8.6.1	Test for two-port SPDs and one-port SPDs with separate input/output terminals.....	75
8.6.2	Environmental tests for outdoor SPDs.....	78
8.6.3	SPDs with separate isolated circuits.....	78
8.6.4	Short-circuiting type SPDs.....	78
8.7	Additional tests for specific performance if declared by the manufacturer.....	78
8.7.1	Total discharge current test for multipole SPDs.....	78
8.7.2	Test to determine the voltage drop.....	79
8.7.3	Load-side surge withstand capability.....	79
8.7.4	Measurement of voltage rate of rise $du/dt$ .....	80
9	Routine and acceptance tests.....	80
9.1	Routine tests.....	80
9.2	Acceptance tests.....	80
Annex A	(normative) Reference test voltages for SPDs $U_{REF}$ .....	81
Annex B	(normative) TOV Ratings.....	86
Annex C	(normative) Tests to determine the presence of a switching component and the magnitude of the follow current.....	89
Annex D	(normative) Reduced test procedures.....	91
Annex E	(informative) Alternative circuits for testing SPDs under TOVs caused by faults in the high (medium) voltage system.....	93
Annex F	(informative) Environmental tests for outdoor SPDs.....	94
Annex G	(normative) Temperature rise limits.....	96
Bibliography	.....	97
Figure 1	– Metallic screen test set-up.....	31
Figure 2	– Example of a decoupling network for single-phase power.....	39
Figure 3	– Example of a decoupling network for three-phase power.....	39
Figure 4	– Alternate test for the measured limiting voltage.....	39

Figure 5 – Flow chart of testing to check the voltage protection level $U_p$ .....	42
Figure 6 – Flow chart of the operating duty test .....	45
Figure 7 – Test set-up for operating duty test.....	46
Figure 8 – Operating duty test timing diagram for test classes I and II .....	47
Figure 9 – Additional duty test timing diagram for test class I.....	48
Figure 10 – Operating duty test timing diagram for test class III .....	48
Figure 11 – Test circuit for SPD with $I_{fi}$ lower than the declared short-circuit rating.....	52
Figure 12 – Test circuit for SPD's failure mode simulation .....	53
Figure 13 – Timing diagram for SPD's failure mode simulation.....	53
Figure 14 – Example of a test circuit to perform the test under TOVs caused by faults in the low voltage system.....	57
Figure 15 – Timing diagram for the test under TOVs caused by faults in the low voltage system.....	57
Figure 16 – Example of circuit for testing SPDs for use in TT systems under TOVs caused by faults in high (medium) voltage system .....	59
Figure 17 – Timing diagram for use in testing SPDs under TOVs caused by faults in the high (medium) voltage system using circuit of Figure 16 .....	60
Figure 18 – Test apparatus for impact test.....	69
Figure 19 – Striking element of the pendulum hammer.....	70
Figure 20 – Ball thrust tester.....	73
Figure 21 – Loading rod for ball thrust tester.....	73
Figure 22 – Examples for appropriate test circuits of the load side short-circuit test(s).....	77
Figure E.1 – Examples of a three-phase and single-phase circuit for use in testing SPDs under TOVs caused by faults in the high (medium) voltage system .....	93
Table 1 – List of Abbreviations.....	17
Table 2 – Class I, II and III tests .....	19
Table 3 – Type test requirements for SPDs.....	32
Table 4 – Common pass criteria for type tests .....	34
Table 5 – Cross reference for pass criteria versus type tests .....	35
Table 6 – Preferred parameters for class I test .....	36
Table 7 – Tests to be performed to determine the measured limiting voltage .....	43
Table 8 – Prospective short-circuit current and power factor .....	50
Table 9 – Dielectric withstand .....	55
Table 10 – Screw thread diameters and applied torques .....	61
Table 11 – Cross-sections of copper conductors for screw-type or screwless terminals .....	62
Table 12 – Pulling forces (screw terminals).....	63
Table 13 – Conductor dimensions .....	63
Table 14 – Pulling forces (screwless terminals) .....	64
Table 15 – Air clearances for SPDs .....	66
Table 16 – Creepage distances for SPDs.....	67
Table 17 – Relationship between material groups and classifications.....	68
Table 18 – Fall distances for impact requirements .....	71
Table 19 – Test conductors for rated load current test .....	75

Table 20 – Current factor $k$ for overload behaviour .....	76
Table 21 – Tolerances for proportional surge currents .....	79
Table A.1 – Reference test voltage values .....	82
Table B.1 – TOV test values for systems complying with IEC 60364 series .....	86
Table B.2 – TOV test parameters for North American systems .....	87
Table B.3 – TOV test parameters for Japanese systems .....	88
Table D.1 – Reduced test procedure for SPDs complying with IEC 61643-1:2005 .....	92
Table G.1 – Temperature-rise limits .....	96

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**LOW-VOLTAGE SURGE PROTECTIVE DEVICES –****Part 11: Surge protective devices connected  
to low-voltage power systems –  
Requirements and test methods**

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International Standard IEC 61643-11 has been prepared by subcommittee 37A: Low-voltage surge protective devices, of IEC technical committee 37: Surge arresters.

This first edition of IEC 61643-11 cancels and replaces the second edition of IEC 61643-1 published in 2005. This edition constitutes a technical revision.

The main changes with respect of the second edition of IEC 61643-1 are the complete restructuring and improvement of the test procedures and test sequences.

The text of this standard is based on the following documents:

FDIS	Report on voting
37A/229/FDIS	37A/232/RVD

Full information on the voting for the approval of this standard 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 parts of the IEC 61643 series can be found, under the general title *Low-voltage surge protective devices*, on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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

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## INTRODUCTION

This part of IEC 61643 addresses safety and performance tests for surge protective devices (SPDs).

There are three classes of tests:

The Class I test is intended to simulate partial conducted lightning current impulses. SPDs subjected to Class I test methods are generally recommended for locations at points of high exposure, e.g., line entrances to buildings protected by lightning protection systems.

SPDs tested to Class II or III test methods are subjected to impulses of shorter duration.

SPDs are tested on a “black box” basis as far as possible.

IEC 61643-12 addresses the selection and application principles of SPDs in practical situations.