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Station Service Voltage Transformers (SSVT)





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CONTENTS

FOREWORD.....	7
1 Scope.....	9
2 Normative references	9
3 Terms and definitions	11
3.1 General definitions.....	11
3.2 Definitions related to voltage and dielectric aspects	12
3.3 Definitions related to windings	14
3.4 Definitions related to ratings	15
3.5 Definitions related to losses	16
3.6 Definitions related to gas insulation	17
3.7 Index of abbreviated terms.....	18
4 Profiles and use of normative references.....	19
5 Environmental conditions.....	19
5.1 Normal (usual) environmental conditions.....	19
5.1.1 General	19
5.1.2 Temperature	19
5.1.3 Altitude	19
5.1.4 Other environmental conditions	19
5.1.5 Primary voltage	20
5.1.6 Load current	20
5.1.7 Step-down operation.....	20
5.1.8 Operation above rated voltage or below rated frequency	20
5.2 Special (unusual) environmental conditions	21
5.2.1 General	21
5.2.2 Special (unusual) temperature	21
5.2.3 Altitude correction factor for altitudes greater than 1 000 m	21
5.2.4 Loading beyond rated power.....	22
5.2.5 Other special (unusual) environmental conditions	22
6 Ratings.....	23
6.1 Secondary voltage	23
6.2 Cooling classes of SSVTs	23
6.3 Frequency	23
6.4 Rated power	23
6.5 Voltage ratings and taps	23
6.5.1 General	23
6.5.2 Voltage ratings	23
6.5.3 Ratings of SSVT taps	24
6.5.4 Voltage drop or rise (voltage regulation) for a specified load condition.....	24
6.6 Connections.....	24
6.7 Markings.....	24
6.7.1 Polarity of single-phase SSVTs.....	24
6.7.2 Terminal markings	24
6.7.3 Nameplates	25
6.8 Turns ratio	26
6.8.1 General	26
6.8.2 Taps	26

6.9	Accuracy ratings of measurement windings	26
6.9.1	General	26
6.9.2	Assignment of accuracy class	27
6.9.3	Accuracy classification for SSVT with two secondary measuring windings or tapped secondary windings	27
6.10	Short-circuit impedance	27
6.11	Total losses	27
6.12	Rated insulation levels of primary terminals	27
6.12.1	Line terminal	27
6.12.2	Creepage distance requirements	29
6.12.3	Basic lightning impulse insulation level (BIL)	29
6.12.4	Switching impulse insulation level (BSL)	29
6.12.5	Neutral terminals	29
6.13	Rated insulation levels of secondary terminals	29
6.13.1	Secondary power windings terminals	29
6.13.2	Secondary measuring windings terminals	29
6.14	Insulation resistance requirements	29
6.15	Earth shield requirements	30
6.16	Dissolved gas and water content requirements for new mineral oil-immersed SSVTs	30
6.17	Internal arc requirements	30
6.17.1	General	30
6.17.2	Internal arc protection class I	31
6.17.3	Internal arc protection class II	31
6.18	Temperature rise and loading conditions for SSVT	31
6.19	Partial discharge requirements	32
6.20	RIV requirements	32
7	Construction	32
7.1	Tank pressure requirements for liquid-filled SSVTs	32
7.2	Mechanical performance requirements	32
7.2.1	Overview	32
7.2.2	Sealing requirements tests	33
7.2.3	Mechanical strength of the SSVT	34
7.3	Liquid insulation system	35
7.3.1	Insulating liquids	35
7.3.2	Insulating liquid preservation	35
7.4	Gas insulation system	35
7.4.1	Requirements for gases in SSVTs	35
7.4.2	Pressure monitoring devices	36
7.4.3	Tank construction and maximum gas leakage rates	36
7.5	Earthing	36
7.5.1	SSVT tank earthing	36
7.5.2	Earthing of core	37
7.6	Degrees of protection by enclosures	37
7.6.1	General	37
7.6.2	Protection of persons against access to hazardous parts and protection of the equipment against ingress of solid foreign objects	37
7.6.3	Protection against ingress of water	37
7.6.4	Protection of equipment against mechanical impact under normal environmental conditions	37

7.6.5	Tank or enclosure finish.....	38
8	Short-circuit characteristics	38
8.1	Short-circuit withstand requirements	38
8.1.1	General	38
8.1.2	Duration of short-circuit tests	38
8.1.3	Number of short-circuit shots	38
8.2	Short-circuit current calculations	38
8.2.1	Symmetrical current.....	38
8.2.2	Asymmetrical current	39
8.3	Temperature limits of SSVTs for short-circuit conditions	39
8.4	Calculation of winding temperature during a short-circuit	39
9	Tests	40
9.1	General.....	40
9.2	Dielectric tests	40
9.2.1	General	40
9.2.2	Dielectric tests at factory	40
9.2.3	Dielectric tests by end user.....	40
9.3	Overview of tests for SSVTs	41
9.3.1	General	41
9.3.2	Routine tests	42
9.3.3	Type tests.....	42
9.3.4	Special tests	42
9.4	Routine test procedures	42
9.4.1	Resistance measurement of windings	42
9.4.2	Verification of terminal markings and polarity.....	42
9.4.3	Winding insulation resistance	43
9.4.4	Losses measurement.....	43
9.4.5	Capacitance and dissipation factor measurements.....	45
9.4.6	Applied voltage test	46
9.4.7	Induced voltage test	46
9.4.8	Partial discharge test	47
9.4.9	Routine leakage	49
9.4.10	Routine ratio and accuracy tests	49
9.4.11	Lightning impulse tests	50
9.4.12	Earth shield check	52
9.5	Type test procedures	52
9.5.1	Dissolved gas and water content analysis.....	52
9.5.2	Mechanical test	53
9.5.3	Lightning impulse voltage test on the primary winding	54
9.5.4	Switching impulse voltage test in wet conditions	56
9.5.5	External radio interference voltage (RIV) test	57
9.5.6	Induced voltage test in wet conditions	60
9.5.7	Temperature rise test	60
9.6	Special test procedures	65
9.6.1	Endurance chopped wave test for liquid filled SSVT	65
9.6.2	Internal arc test	67
9.6.3	Low temperature sealing system test for gas-filled SSVTs	69
9.6.4	Seismic qualification	70
9.6.5	Verification of the degree of protection by enclosures	71

9.6.6	Short-circuit withstand test	71
9.7	Frequency conversion of SSVT performance parameters (50/60 Hz).....	72
9.8	Test report	72
Annex A	(informative) Temperature rise testing considerations	73
A.1	Heating and cooling curves	73
A.2	Temperature stabilization.....	74
A.3	Effect of shutting off power to take resistance measurements	74
A.4	Use of cooling curve to extrapolate to time of shutdown.....	75
A.5	Use of heating or cooling to determine thermal time constant.....	75
Annex B	(informative) Internal arc protection for SSVT	76
Annex C	(informative) Technical information exchange during contracting stage.....	77
C.1	General.....	77
C.2	System information	77
C.3	Environmental conditions	77
C.4	Ratings	78
Annex D	(normative) Temperature correction of load loss and impedance voltage	79
Bibliography	81
Figure 1	– Factor <i>m</i> for the switching impulse withstand test.....	22
Figure 2	– Recommended earth pad dimensions.....	36
Figure 3	– Circuit for measuring impedance: wattmeter, voltmeter, ammeter method	44
Figure 4	– Application of the test loads to the primary terminals.....	53
Figure 5	– Application of the test load to the secondary terminals.....	54
Figure 6	– Example of the application of the test load to the secondary extending conductor.....	54
Figure 7	– RIV measuring circuit according to CISPR 18-2.....	58
Figure 8	– RIV measuring circuit according to NEMA 107 (alternative 3-3 c).....	59
Figure 9	– Example of loading back method.....	64
Figure 10	– Internal arc fault test setup.....	68
Figure A.1	– Heating curve	73
Figure A.2	– Cooling curve.....	74
Table 1	– Index of abbreviated terms	18
Table 2	– Standard values of rated voltage factor	21
Table 3	– Nameplate information	25
Table 4	– Basic impulse insulation levels and power frequency withstand voltages	28
Table 5	– Creepage distances as a function of $U_m / \sqrt{3}$	29
Table 6	– Dissolved gas and water content for new mineral oil-immersed SSVTs.....	30
Table 7	– Limits of temperature rise	31
Table 8	– Maximum allowable 24 h average temperature of cooling air to permit SSVT to operate at rated power.....	32
Table 9	– Maximum operating temperature of power terminals intended for bolted connection in air	32
Table 10	– Sealing test options for liquid filled SSVTs	33
Table 11	– Static terminal loads for high voltage terminals.....	34

Table 12 – Static terminal loads for low voltage terminals	34
Table 13 – Routine, type, and other tests for SSVTs	41
Table 14 – Test system accuracy requirements.....	45
Table 15 – Partial discharge test voltages.....	48
Table 16 – External radio interference voltage (RIV).....	60
Table 17 – Comparable seismic levels	70
Table A.1 – Data from Figure A.1.....	73
Table A.2 – Data from Figure A.2.....	74
Table C.1 – System data.....	77
Table C.2 – Environmental conditions data	7
Table C.3 – Rating data	78
Table D.1 – List of symbols.....	79

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STATION SERVICE VOLTAGE TRANSFORMERS (SSVT)

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The text of this International Standard is based on the following IEC documents:

Draft	Report on voting
38/788/FDIS	38/789/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

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- reconfirmed,
- withdrawn, or
- revised.

STATION SERVICE VOLTAGE TRANSFORMERS (SSVT)

1 Scope

This document describes electrical and mechanical requirements of single-phase station service voltage transformers with system voltages of 46 kV or higher and with the maximum rated voltage of the power winding of 1 000 V.

This document is a basis for the establishment of performance and limited electrical and mechanical interchangeability requirements of the equipment are described. It is also a basis for assistance in the proper selection of such equipment.

A station service voltage transformer (SSVT) is a single-phase transformer to be connected line-to-earth on an effectively earthed system. It can be used either as an individual unit for supplying single-phase loads, or in a three-phase bank to support three-phase loads. A typical application is to supply substation power such as lighting, pump and motor loads. The SSVT can be provided with a measuring winding when requested by the user.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60060-1:2010, *High-voltage testing techniques – Part 1: General definitions and test requirements*

IEC 60060-2, *High-voltage testing techniques – Part 2: Measuring systems*

IEC 60071-2:2023, *Insulation co-ordination – Part 2: Application guidelines*

IEC 60076-1:2011, *Power transformers – Part 1: General*

IEC 60076-5, *Power transformers – Part 5: Ability to withstand short circuit*

IEC 60270, *High-voltage test techniques – Partial discharge measurements*

IEC 60376, *Specification of technical grade sulphur hexafluoride (SF₆) and complementary gases to be used in its mixtures for use in electrical equipment*

IEC 60475, *Method of sampling insulating liquids*

IEC 60480, *Specifications for the re-use of sulphur hexafluoride (SF₆) and its mixtures in electrical equipment*

IEC 60567, *Oil-filled electrical equipment – Sampling of free gases and analysis of free and dissolved gases in mineral oils and other insulating liquids – Guidance*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*