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Standards

Irish Standard
I.S. EN IEC 61954:2021

Static VAR compensators (SVC) - Testing of thyristor valves

I.S. EN IEC 61954:2021

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN IEC 61954:2021 is the adopted Irish version of the European Document EN IEC 61954:2021, Static VAR compensators (SVC) - Testing of thyristor valves

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EN IEC 61954

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2021

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Supersedes EN 61954:2011 and all of its amendments
and corrigenda (if any)

English Version

Static VAR compensators (SVC) - Testing of thyristor valves (IEC 61954:2021)

Compensateurs statiques de puissance réactive (SVC) -
Essais des valves à thyristors
(IEC 61954:2021)

Statische Blindleistungskompensatoren (SVC) - Prüfung
von Thyristorventilen
(IEC 61954:2021)

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EN IEC 61954:2021 (E)

European foreword

The text of document 22F/642/FDIS, future edition 3 of IEC 61954, prepared by SC 22F “Power electronics for electrical transmission and distribution systems” of IEC/TC 22 “Power electronic systems and equipment” was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61954:2021.

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NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60060	series	High-voltage test techniques	EN 60060	series
IEC 60060-1	2010	High-voltage test techniques - Part 1: General definitions and test requirements	EN 60060-1	2010
IEC 60060-2	-	High-voltage test techniques - Part 2: Measuring systems	EN 60060-2	-
IEC 60071	series	Insulation co-ordination	EN IEC 60071	series
IEC 60071-1	2019	Insulation co-ordination - Part 1: Definitions, principles and rules	EN IEC 60071-1	2019
IEC 60270	-	High-voltage test techniques - Partial discharge measurements	EN 60270	-
IEC 60700-1	2015	Thyristor valves for high voltage direct current (HVDC) power transmission - Part 1: Electrical testing	EN 60700-1	2015

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Static VAR compensators (SVC) – Testing of thyristor valves

Compensateurs statiques de puissance réactive (SVC) – Essais des valves à thyristors





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IEC 61954

Edition 3.0 2021-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Static VAR compensators (SVC) – Testing of thyristor valves

Compensateurs statiques de puissance réactive (SVC) – Essais des valves à thyristors

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CONTENTS

FOREWORD.....	5
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions	7
4 General requirements for type, production and optional tests.....	9
4.1 Summary of tests	9
4.2 Objectives of tests.....	10
4.2.1 General	10
4.2.2 Dielectric tests	10
4.2.3 Operational tests.....	10
4.2.4 Electromagnetic interference tests.....	11
4.2.5 Production tests	11
4.2.6 Optional tests.....	11
4.3 Guidelines for the performance of type and optional tests	11
4.4 Test conditions.....	12
4.4.1 General	12
4.4.2 Valve temperature at testing.....	13
4.4.3 Redundant thyristor levels.....	13
4.5 Permissible component failures during type testing	14
4.6 Documentation of test results	14
4.6.1 Test reports to be issued.....	14
4.6.2 Contents of a type test report.....	15
5 Type tests on TCR and TSR valves.....	15
5.1 Dielectric tests between valve terminals and earth	15
5.1.1 General	15
5.1.2 AC test	16
5.1.3 Lightning impulse test	16
5.2 Dielectric tests between valves (MVU only).....	17
5.2.1 General	17
5.2.2 AC test	17
5.2.3 Lightning impulse test	18
5.3 Dielectric tests between valve terminals.....	18
5.3.1 General	18
5.3.2 AC test	18
5.3.3 Switching impulse test.....	20
5.4 Operational tests.....	21
5.4.1 Periodic firing and extinction test.....	21
5.4.2 Minimum AC voltage test.....	22
5.4.3 Temperature rise test.....	23
6 Type tests on TSC valves	23
6.1 Dielectric tests between valve terminals and earth	23
6.1.1 General	23
6.1.2 AC-DC test	24
6.1.3 Lightning impulse test	25
6.2 Dielectric tests between valves (for MVU only).....	26
6.2.1 General	26

6.2.2	AC-DC test	26
6.2.3	Lightning impulse test	28
6.3	Dielectric tests between valve terminals.....	28
6.3.1	General	28
6.3.2	AC-DC test	28
6.3.3	Switching impulse test.....	30
6.4	Operational tests.....	31
6.4.1	Overcurrent tests	31
6.4.2	Minimum AC voltage test.....	35
6.4.3	Temperature rise test.....	36
7	Electromagnetic interference tests	36
7.1	Objectives.....	36
7.2	Test procedures	36
7.2.1	General	36
7.2.2	Switching impulse test.....	37
7.2.3	Non-periodic firing test.....	37
8	Production tests.....	37
8.1	General.....	37
8.2	Visual inspection	37
8.3	Connection check.....	37
8.4	Voltage-dividing/damping circuit check	38
8.5	Voltage withstand check.....	38
8.6	Check of auxiliaries	38
8.7	Firing check	38
8.8	Cooling system pressure test.....	38
8.9	Partial discharge tests.....	38
9	Optional tests on TCR and TSR valves.....	38
9.1	Overcurrent test.....	38
9.1.1	Overcurrent with subsequent blocking	38
9.1.2	Overcurrent without blocking	39
9.2	Positive voltage transient during recovery test	39
9.2.1	Objectives.....	39
9.2.2	Test values and waveshapes.....	39
9.2.3	Test procedures	40
9.3	Non-periodic firing test	40
9.3.1	Objectives.....	40
9.3.2	Test values and waveshapes.....	40
9.3.3	Test procedures	41
10	Optional tests on TSC valves	42
10.1	Positive voltage transient during recovery test	42
10.1.1	Test objective	42
10.1.2	Test values and waveshapes.....	42
10.1.3	Test procedures	42
10.2	Non-periodic firing test	42
10.2.1	Objectives.....	42
10.2.2	Test values and waveshapes.....	43
10.2.3	Test procedures	44

Figure 1 – TSC branch.....	33
Figure 2 – One-loop overcurrent.....	34
Figure 3 – Two-loop overcurrent.....	35
Table 1 – List of tests	9
Table 2 – Number of thyristor levels permitted to fail during type tests	15

INTERNATIONAL ELECTROTECHNICAL COMMISSION

STATIC VAR COMPENSATORS (SVC) – TESTING OF THYRISTOR VALVES

FOREWORD

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International Standard IEC 61954 has been prepared by subcommittee 22F: Power electronics for electrical transmission and distribution systems, of IEC technical committee 22: Power electronic systems and equipment.

This third edition cancels and replaces the second edition published in 2011, Amendment 1:2013 and Amendment 2:2017. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition: important clarifications were made in 4.4.1.2, 5.1.2.2, 5.1.3.2, 5.2.3.2, 6.1.2.2, 6.1.2.4, 6.1.3.2, 6.2.2.2, 6.2.2.4, 6.3.2.2 and 9.3.2.

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

FDIS	Report on voting
22F/642/FDIS	22F/658/RVD

Full information on the voting for the approval of this International Standard 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.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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STATIC VAR COMPENSATORS (SVC) – TESTING OF THYRISTOR VALVES

1 Scope

This document defines type, production and optional tests on thyristor valves used in thyristor controlled reactors (TCR), thyristor switched reactors (TSR) and thyristor switched capacitors (TSC) forming part of static VAR compensators (SVC) for power system applications. The requirements of the document apply both to single valve units (one phase) and to multiple valve units (several phases).

Clauses 4 to 7 detail the type tests, i.e. tests which are carried out to verify that the valve design meets the requirements specified. Clause 8 covers the production tests, i.e. tests which are carried out to verify proper manufacturing. Clauses 9 and 10 detail optional tests, i.e. tests additional to the type and production tests.

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 (all parts), *High-voltage test techniques*

IEC 60060-1:2010, *High-voltage test techniques – Part 1: General definitions and test requirements*

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

IEC 60071 (all parts), *Insulation co-ordination*

IEC 60071-1:2019, *Insulation co-ordination – Part 1: Definitions, principles and rules*

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

IEC 60700-1:2015, *Thyristor valves for high-voltage direct current (HVDC) power transmission – Part 1: Electrical testing*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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