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**Elektronke za napetostno napajane pretvornike za statični sinhroni kompenzator (STATCOM) - Električno preskušanje (IEC 62927:2017)**

Voltage sourced converter (VSC) valves for static synchronous compensator (STATCOM) - Electrical Testing (IEC 62927:2017)

Ventile von Spannungszwischenkreis-Stromrichtern (VSC) für STATCOM - Elektrische Prüfungen (IEC 62927:2017)

Valves de convertisseur source de tension (VSC) pour compensateur synchrone statique (STATCOM) - Essais électriques (IEC 62927:2017)

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EUROPEAN STANDARD

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**Voltage sourced converter (VSC) valves for static synchronous compensator (STATCOM) - Electrical Testing (IEC 62927:2017)**

Valves de convertisseur source de tension (VSC) pour compensateur synchrone statique (STATCOM) - Essais électriques  
(IEC 62927:2017)

Ventile von Spannungszwischenkreis-Stromrichtern (VSC) für STATCOM - Elektrische Prüfungen  
(IEC 62927:2017)

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**EN 62927:2017****European foreword**

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|               |      |                                 |
|---------------|------|---------------------------------|
| ISO/IEC 17025 | NOTE | Harmonized as EN ISO/IEC 17025. |
| IEC 61954     | NOTE | Harmonized as EN 61954.         |
| IEC 62747     | NOTE | Harmonized as EN 62747.         |

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE 1 When 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](http://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 -- Part 1: General definitions and test requirements                                     | EN 60060     | series      |
| IEC 60060-1        | -           | High-voltage test techniques -- Part 1: General definitions and test requirements                                     | EN 60060-1   | -           |
| IEC 60071-1        | 2006        | Insulation co-ordination -- Part 1: Definitions, principles and rules   | EN 60071-1   | 2006        |
| IEC 60700-1        | 2015        | Thyristor valves for high voltage direct current (HVDC) power transmission -- Part 1: Electrical testing              | EN 60700-1   | 2015        |
| IEC 62501          | -           | Voltage sourced converter (VSC) valves for high-voltage direct current (HVDC) power transmission - Electrical testing | EN 62501     | -           |

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# INTERNATIONAL STANDARD



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**Voltage sourced converter (VSC) valves for static synchronous compensator (STATCOM) – Electrical testing**

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## CONTENTS

|   |    |
|---|----|
| FOREWORD.....   | 5  |
| 1 Scope.....  | 7  |
| 2 Normative references .....  | 7  |
| 3 Terms and definitions .....   | 7  |
| 3.1 Insulation co-ordination terms .....  | 7  |
| 3.2 Power semiconductor terms .....   | 8  |
| 3.3 Operating states of converter .....   | 8  |
| 3.4 STATCOM construction terms.....   | 9  |
| 3.5 Valve structure terms.....  | 10 |
| 4 General requirements .....  | 11 |
| 4.1 Guidelines for the performance of type tests .....                            | 11 |
| 4.1.1 General .....   | 11 |
| 4.1.2 Dielectric tests.....   | 11 |
| 4.1.3 Operational tests .....   | 11 |
| 4.1.4 Electromagnetic interference tests .....                                    | 11 |
| 4.1.5 Evidence in lieu .....  | 11 |
| 4.1.6 Test object.....  | 12 |
| 4.1.7 Test procedure .....  | 12 |
| 4.1.8 Ambient temperature for testing.....  | 12 |
| 4.1.9 Frequency for testing.....  | 12 |
| 4.1.10 Conditions to be considered in determination of type test parameters ..... | 12 |
| 4.1.11 Test reports .....   | 12 |
| 4.2 Atmospheric correction factor.....  | 12 |
| 4.3 Treatment of redundancy.....  | 13 |
| 4.3.1 Operational tests .....   | 13 |
| 4.3.2 Dielectric tests.....   | 13 |
| 4.4 Permissible component failures during type testing .....                      | 14 |
| 5 List of tests.....  | 14 |
| 6 Operational tests .....   | 15 |
| 6.1 Purpose of tests.....   | 15 |
| 6.2 Test object.....  | 15 |
| 6.3 Test circuit.....   | 16 |
| 6.4 Maximum continuous operating duty test .....                                  | 16 |
| 6.5 Maximum temporary overload operating duty test .....                          | 17 |
| 6.6 Minimum start voltage test .....  | 17 |
| 7 Dielectric tests on valve support .....   | 18 |
| 7.1 Purpose of tests.....   | 18 |
| 7.2 Test object.....  | 18 |
| 7.3 Test requirements.....  | 18 |
| 7.3.1 Valve support DC voltage test.....  | 18 |
| 7.3.2 Valve support AC voltage test.....  | 19 |
| 7.3.3 Valve support lightning impulse test.....                                   | 20 |
| 8 Dielectric tests on multiple valve unit (MVU).....                              | 20 |
| 8.1 General.....  | 20 |
| 8.2 Purpose of tests.....   | 20 |
| 8.3 Test object.....  | 20 |



|                       |  |    |
|-----------------------|--|----|
| 8.4                   | Test requirements .....  | 20 |
| 8.4.1                 | MVU AC voltage test .....  | 20 |
| 8.4.2                 | MVU DC voltage test .....  | 21 |
| 8.4.3                 | MVU lightning impulse test .....                                   | 21 |
| 9                     | Dielectric tests between valve terminals .....                     | 21 |
| 9.1                   | Purpose of the test.....   | 21 |
| 9.2                   | Test object.....   | 22 |
| 9.3                   | Test methods .....   | 22 |
| 9.3.1                 | General .....  | 22 |
| 9.3.2                 | Method 1 .....   | 22 |
| 9.3.3                 | Method 2 .....   | 23 |
| 9.4                   | Test requirements.....   | 23 |
| 9.4.1                 | Valve AC voltage or AC-DC voltage test .....                       | 23 |
| 9.4.2                 | Valve switching impulse test.....                                  | 25 |
| 10                    | IGBT overcurrent turn-off test .....                               | 26 |
| 10.1                  | Purpose of test .....  | 26 |
| 10.2                  | Test object.....   | 26 |
| 10.3                  | Test requirements.....   | 26 |
| 11                    | Tests for valve insensitivity to electromagnetic disturbance ..... | 27 |
| 11.1                  | Purpose of tests.....  | 27 |
| 11.2                  | Test object.....   | 27 |
| 11.3                  | Test requirements.....   | 27 |
| 11.3.1                | General .....  | 27 |
| 11.3.2                | Approach 1 .....   | 27 |
| 11.3.3                | Approach 2 .....   | 28 |
| 11.3.4                | Acceptance criteria .....  | 28 |
| 12                    | Short-circuit current test (optional).....                         | 28 |
| 12.1                  | Purpose of tests.....  | 28 |
| 12.2                  | Test object.....   | 28 |
| 12.3                  | Test requirements.....   | 29 |
| 13                    | Production tests.....  | 29 |
| 13.1                  | General.....   | 29 |
| 13.2                  | Purpose of tests.....  | 29 |
| 13.3                  | Test object.....   | 29 |
| 13.4                  | Test requirements.....   | 29 |
| 13.5                  | Production test objectives .....                                   | 30 |
| 13.5.1                | Visual inspection .....  | 30 |
| 13.5.2                | Connection check .....   | 30 |
| 13.5.3                | Voltage-grading circuit check.....                                 | 30 |
| 13.5.4                | Control, protection and monitoring circuit checks .....            | 30 |
| 13.5.5                | Voltage withstand check .....                                      | 30 |
| 13.5.6                | Turn-on/turn-off check .....                                       | 30 |
| 13.5.7                | Pressure test .....  | 30 |
| 14                    | Presentation of type test results .....                            | 30 |
| Annex A (informative) | Overview of STATCOM valves .....                                   | 32 |
| A.1                   | General.....   | 32 |
| A.2                   | STATCOM applications and operating limits .....                    | 32 |
| A.3                   | Overview of STATCOM valve types.....                               | 33 |

|                              |  |    |
|------------------------------|--|----|
| A.4                          | STATCOMs based on switch type valve .....  | 33 |
| A.4.1                        | General .....  | 33 |
| A.4.2                        | Two-level converter .....  | 34 |
| A.4.3                        | Three-level converters .....   | 34 |
| A.4.4                        | Multi-level converters.....  | 35 |
| A.5                          | STATCOMs based on controllable voltage source type valve .....                             | 36 |
| A.6                          | Valve switching principles .....   | 37 |
| Annex B (informative)        | Valve component fault tolerance.....   | 39 |
| Bibliography                 | .....  | 40 |
|                              |  |    |
| Figure A.1                   | – STATCOM $U-I$ characteristics .....  | 33 |
| Figure A.2                   | – Two-level converter .....  | 34 |
| Figure A.3                   | – Three-level NPC converter.....   | 35 |
| Figure A.4                   | – Three-level flying capacitor converter .....   | 35 |
| Figure A.5                   | – Modular multilevel converter .....   | 36 |
| Figure A.6                   | – Single-phase full-bridge converter.....  | 37 |
| Figure A.7                   | – Two-level converter output voltage .....   | 37 |
| Figure A.8                   | – Output voltage shape of three-level converter and modular multi-level converter .....    | 38 |
| <b>iTeh STANDARD PREVIEW</b> |  |    |
| (standards.iteh.ai)          |  |    |
| Table 1                      | – Minimum number of valve levels to be tested as a function of valve levels per valve..... | 12 |
| Table 2                      | – Valve level faults permitted during type tests.....                                      | 14 |
| Table 3                      | – List of type tests.....  | 15 |

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**VOLTAGE SOURCED CONVERTER (VSC) VALVES FOR STATIC  
SYNCHRONOUS COMPENSATOR (STATCOM) –  
ELECTRICAL TESTING**

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International Standard IEC 62927 has been prepared by subcommittee 22F: Power electronics for electrical transmission and distribution systems, of IEC technical committee 22: Power electronic systems and equipment.

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

|             |                  |
|-------------|------------------|
| CDV         | Report on voting |
| 22F/412/CDV | 22F/431A/RVC     |

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.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

The contents of the corrigendum of December 2017 have been included in this copy.

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# VOLTAGE SOURCED CONVERTER (VSC) VALVES FOR STATIC SYNCHRONOUS COMPENSATOR (STATCOM) – ELECTRICAL TESTING

## 1 Scope

This document applies to self-commutated valves, for use in voltage sourced converter (VSC) for static synchronous compensator (STATCOM). It is restricted to electrical type and production tests.

The tests specified in this document are based on air insulated valves. For other types of valves, the test requirements and acceptance criteria are agreed between the purchaser and the supplier.

## 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, *High-voltage test techniques – Part 1: General definitions and test requirements*  
<https://standards.iteh.ai/catalog/standards/sist/70f54383-e070-4521-b3de->

IEC 60071-1:2006, *Insulation co-ordination – Part 1: Definitions, principles and rules*  
<https://standards.iteh.ai/catalog/standards/sist/184/2006/iec-60071-1-2006>

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

IEC 62501, *Voltage sourced converter (VSC) valves for high-voltage direct current (HVDC) power transmission – Electrical testing*

## 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

### 3.1 Insulation co-ordination terms

#### 3.1.1

##### test withstand voltage

value of a test voltage of standard waveshape at which a new valve, with unimpaired integrity, does not show any disruptive discharge and meets all other acceptance criteria specified for the particular test, when subjected to a specified number of applications or a specified duration of the test voltage, under specified conditions