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Kopplingsapparater för spänning över 1 kV – Del 204: Styva gasisolerade transmissionsledningar för märkspänning över 52 kV

*High-voltage switchgear and controlgear –
Part 204: Rigid gas-insulated transmission lines for rated voltage above 52 kV*

Som svensk standard gäller europastandarden EN 62271-204:2011. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62271-204:2011.

Nationellt förord

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**High-voltage switchgear and controlgear -
Part 204: Rigid gas-insulated transmission lines
for rated voltage above 52 kV
(IEC 62271-204:2011)**

Appareillage à haute tension -
Part 204: Lignes de transport rigides à
isolation gazeuse de tension assignée
supérieure à 52 kV
(CEI 62271-204:2011)

Hochspannungs-Schaltgeräte und -
Schaltanlagen -
Teil 204: Starre gasisolierte
Übertragungsleitungen für
Bemessungsspannungen über 52 kV
(IEC 62271-204:2011)

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

The text of document 17C/510/FDIS, future edition 1 of IEC 62271-204, prepared by SC 17C, "High-voltage switchgear and controlgear assemblies", of IEC TC 17, "Switchgear and controlgear" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62271-204:2011.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2012-05-30
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2014-08-30

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Endorsement notice

The text of the International Standard IEC 62271-204:2011 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

- [1] IEC 60071-1 NOTE Harmonized as EN 60071-1.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-151	-	International Electrotechnical Vocabulary (IEV) - Part 151: Electrical and magnetic devices	-	-
IEC 60050-441	1984	International Electrotechnical Vocabulary (IEV) - Chapter 441: Switchgear, controlgear and fuses	-	-
IEC 60060-1	-	High-voltage test techniques - Part 1: General definitions and test requirements	EN 60060-1	-
IEC 60068-1	-	Environmental testing - Part 1: General and guidance	EN 60068-1	-
IEC 60229	2007	Tests on cable oversheaths which have a special protective function and are applied by extrusion	EN 60229	2008
IEC 60270	-	High-voltage test techniques - Partial discharge measurements	EN 60270	-
IEC 60287-3-1	1995	Electric cables - Calculation of the current rating - Part 3: Sections on operating conditions - Section 1: Reference operating conditions and selection of cable type	-	-
IEC 60376	-	Specification of technical grade sulfur hexafluoride (SF ₆) for use in electrical equipment	EN 60376	-
IEC 60480	-	Guidelines for the checking and treatment of sulphur hexafluoride (SF ₆) taken from electrical equipment and specification for its re-use	EN 60480	-
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993
IEC 62271-1	2007	High-voltage switchgear and controlgear - Part 1: Common specifications	EN 62271-1	2008
IEC 62271-203	201X ¹⁾	High-voltage switchgear and controlgear - Part 203: Gas-insulated metal-enclosed switchgear for rated voltages above 52 kV	EN 62271-203	201X ¹⁾
IEC/TR 62271-303	-	High-voltage switchgear and controlgear - Part 303: Use and handling of sulphur hexafluoride (SF ₆)	CLC/TR 62271-303	-

¹⁾ To be published.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/IEC Guide 51	-	Safety aspects - Guidelines for their inclusion - in standards	-	-

CONTENTS

1	General	7
1.1	Scope.....	7
1.2	Normative references	7
2	Normal and special service conditions.....	8
2.101	Installation in open air	8
2.102	Buried installation	9
2.103	Installation in tunnel, shaft or similar situation	9
3	Terms and definitions	9
4	Ratings.....	11
4.1	Rated voltage (U_r)	11
4.2	Rated insulation level.....	11
4.3	Rated frequency (f_r).....	11
4.4	Rated normal current and temperature rise	11
4.5	Rated short-time withstand current (I_k)	12
4.6	Rated peak withstand current (I_p)	12
4.7	Rated duration of short circuit (t_k).....	12
4.8	Rated supply voltage of closing and opening devices and of auxiliary and control circuits (U_a)	12
4.9	Rated supply frequency of closing and opening devices and of auxiliary circuits	12
4.10	Rated pressure of compressed gas supply for controlled pressure systems	13
4.11	Rated filling levels for insulation and/or operation.....	13
5	Design and construction.....	13
5.1	Requirements for liquids in GIL.....	13
5.2	Requirements for gases in GIL.....	13
5.3	Earthing.....	13
5.4	Auxiliary and control equipment	14
5.5	Dependent power operation	14
5.6	Stored energy operation.....	14
5.7	Independent manual or power operation (independent unlatched operation)	14
5.8	Operation of releases	14
5.9	Low- and high-pressure interlocking and monitoring devices	14
5.10	Nameplates	15
5.11	Interlocking devices	15
5.12	Position indication.....	16
5.13	Degree of protection provided by enclosures	16
5.14	Creepage distances for outdoor insulators	16
5.15	Gas and vacuum tightness.....	16
5.16	Liquid tightness	17
5.17	Fire hazard (flammability)	17
5.18	Electromagnetic compatibility (EMC).....	17
5.19	X-ray emission.....	17
5.20	Corrosion	17
5.101	Internal fault	18
5.102	Enclosures.....	19

5.103	Partitions and partitioning.....	20
5.104	Sections of a GIL system	21
5.105	Pressure relief	21
5.106	Compensation of thermal expansion.....	22
5.107	External vibration	22
5.108	Supporting structures for non-buried GIL.....	22
6	Type tests.....	23
6.1	General	23
6.2	Dielectric tests.....	24
6.3	Radio interference voltage (r.i.v.) test	26
6.4	Measurement of the resistance of circuits	26
6.5	Temperature-rise tests.....	26
6.6	Short-time withstand current and peak withstand current tests.....	26
6.7	Verification of the protection	27
6.8	Tightness tests	27
6.9	Electromagnetic compatibility tests (EMC).....	28
6.10	Additional test on auxiliary and control circuits	28
6.11	X-radiation test procedure for vacuum interrupters	28
6.101	Proof tests for enclosures	28
6.102	Destructive pressure tests.....	28
6.103	Anti-corrosion tests for buried installation	28
6.104	Special mechanical test on sliding contacts.....	29
6.105	Test under conditions of arcing due to internal fault.....	30
6.106	Weatherproofing test.....	31
7	Routine tests	31
7.1	Dielectric tests on the main circuits.....	31
7.2	Dielectric tests on auxiliary and control circuits	31
7.3	Measurement of the resistance of the main circuit.....	31
7.4	Tightness test.....	31
7.5	Design and visual checks.....	31
7.101	Partial discharge measurement	31
7.102	Pressure tests of factory made enclosures	32
8	Guide to the selection of GIL.....	32
8.101	Short time overload capability	32
8.102	Forced cooling	32
9	Information to be given with enquiries, tenders and orders	32
9.101	Information with enquiries and orders.....	32
9.102	Information with tenders and contract documentation	34
10	Transport, storage, installation, operation and maintenance	35
10.1	Conditions during transport, storage and installation	35
10.2	Installation.....	35
10.3	Operation	36
10.4	Maintenance.....	40
11	Safety.....	40
11.1	Precautions by manufacturers.....	41
11.2	Precautions by users	41
11.3	Electrical aspects	41

11.4 Mechanical aspects	41
11.5 Thermal aspects	41
11.101 Maintenance aspects	41
12 Influence of the product on the environment	42
Annex A (informative) Estimation of continuous current	43
Annex B (informative) Earthing	48
Annex C (normative) Long-term testing of buried installations	52
Bibliography	54
Figure B.1 – Example of earthing system together with active anti-corrosion system in the case of solid bonding of the enclosure at both ends	51
Table 1 – Second characteristic numeral of IP coding	16

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 204: Rigid gas-insulated transmission lines for rated voltage above 52 kV

1 General

1.1 Scope

This part of IEC 62271 applies to rigid HV gas-insulated transmission lines (GIL) in which the insulation is obtained, at least partly, by a non-corrosive insulating gas, other than air at atmospheric pressure, for alternating current of rated voltages above 52 kV, and for service frequencies up to and including 60 Hz.

It is intended that this international standard be used where the provisions of IEC 62271-203 do not cover the application of GIL (see NOTE 3).

At each end of the HV gas-insulated transmission line, a specific element may be used for the connection between the HV gas-insulated transmission line and other equipment like bushings, power transformers or reactors, cable boxes, metal-enclosed surge arresters, voltage transformers or GIS, covered by their own specification.

Unless otherwise specified, the HV gas-insulated transmission line is designed to be used under normal service conditions.

NOTE 1 In this international standard, the term "HV gas-insulated transmission line" is abbreviated to "GIL".

NOTE 2 In this international standard, the word "gas" means gas or gas mixture, as defined by the manufacturer.

NOTE 3 Examples of GIL applications are given:

- where all or part of the HV gas-insulated transmission line is directly buried; or
- where the HV gas-insulated transmission line is located, wholly or partly, in an area accessible to public; or
- where the HV gas-insulated transmission line is long and the typical gas compartment length exceeds the common practice of GIS technology.

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 60050-151, *International Electrotechnical Vocabulary (IEV) – Part 151: Electrical and magnetic devices*

IEC 60050-441:1984, *International Electrotechnical Vocabulary (IEV) – Chapter 441: Switchgear, controlgear and fuses*

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

IEC 60068-1, *Environmental testing – Part 1: General and guidance*

IEC 60229:2007, *Electric cables – Tests on extruded oversheaths with a special protective function*

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

IEC 60287-3-1:1995, *Electric cables – Calculation of the current rating – Part 3-1: Sections on operating conditions – Reference operating conditions and selection of cable type*

IEC 60376, *Specification of technical grade sulfur hexafluoride (SF₆) for use in electrical equipment*

IEC 60480, *Guidelines for the checking and treatment of sulfur hexafluoride (SF₆) taken from electrical equipment and specification or its re-use*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*

IEC 62271-1:2007, *High-voltage switchgear and controlgear – Part 1: Common specifications*

IEC 62271-203:2011, *High-voltage switchgear and controlgear – Part 203: Gas-insulated metal-enclosed switchgear for rated voltages above 52 kV²*

IEC 62271-303, *High-voltage switchgear and controlgear – Part 303: Use and handling of sulphur hexafluoride (SF₆)*

ISO/IEC Guide 51, *Safety aspects – Guidelines for their inclusion in standards*

² To be published.