ICS 29.130.10 SLOVENSKÁ TECHNICKÁ NORMA Február 2015

STN	**Vysokonapäťové spínacie a riadiace zariadenia. Časť 211: Priame pripojenie medzi výkonovými transformátormi a plynom izolovanými spínacími zariadeniami s kovovým krytom na menovité napätia nad 52 kV.**	**STN EN 62271-211** 35 4220

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/15

Obsahuje: EN 62271-211:2014, IEC 62271-211:2014

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62271-211

June 2014

ICS 29.130.10

English Version

High-voltage switchgear and controlgear - Part 211: Direct connection between power transformers and gas-insulated metal-enclosed switchgear for rated voltages above 52 kV (IEC 62271-211:2014)

Appareillage à haute tension - Partie 211: Raccordements directs entre transformateurs de puissance et appareillage sous enveloppe métallique à isolation gazeuse de tensions assignées supérieures à 52 kV
(CEI 62271-211:2014)

Hochspannungs-Schaltgeräte und -Schaltanlagen - Teil 211: Direkte Verbindungen zwischen Leistungstransformatoren und gasisolierten metallgekapselten Schaltanlagen für Bemessungsspannungen über 52 kV
(IEC 62271-211:2014)

This European Standard was approved by CENELEC on 2014-05-29. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 62271-211:2014 E

Foreword

The text of document 17C/596/FDIS, future edition 2 of IEC 62271-211, 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 62271-211:2014.

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)	2015-02-28
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-05-29

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62271-211:2014 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 62271-209:2007	NOTE	Harmonised in EN 62271-209:2007 (not modified).

Annex ZA
(normative)
Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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

Publication	Year	Title	EN/HD	Year
IEC 60076	series	Power transformers -- Part 1: General	EN 60076	series
IEC 60137	2008	Insulated bushings for alternating voltages above 1 000 V	EN 60137	2008
IEC 61936-1	-	Power installations exceeding 1 kV a.c. -- Part 1: Common rules	EN 61936-1	-
IEC 62271-1	2007	High-voltage switchgear and controlgear -- Part 1: Common specifications	EN 62271-1	2008
IEC 62271-203	2011	High-voltage switchgear and controlgear -- Part 203: Gas-insulated metal-enclosed switchgear for rated voltages above 52 kV	EN 62271-203	2012
IEC 62271-207	-	High-voltage switchgear and controlgear -- Part 207: Seismic qualification for gas-insulated switchgear assemblies for rated voltages above 52 kV	EN 62271-207	-

Annex ZB
(informative)

A-deviations

A-deviation: National deviation due to regulations, the alteration of which is for the time being outside the competence of the CENELEC member.

This European Standard does not fall under any Directive.

In the relevant CEN/CENELEC countries these A-deviations are valid instead of the provisions of the European Standard until they have been removed.

Clause	Deviation
5	**Italy** (Ministerial Decree of December 1, 1980 and September 10, 1981, published in the Gazzetta Ufficiale No. 285, 1981-10-16). Gas-filled compartments having a design pressure exceeding 0,5 bar (gauge) or a volume exceeding 2000 litres shall be designed to the Italian pressure vessel code for electrical switchgear.

IEC 62271-211

Edition 1.0 2014-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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IEC 62271-211:2014-04(en-fr)

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CONTENTS

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HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 211: Direct connection between power transformers and gas-insulated metal-enclosed switchgear for rated voltages above 52 kV

FOREWORD

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International Standard IEC 62271-211 has been prepared by subcommittee 17C: High-voltage switchgear and controlgear assemblies, of IEC technical committee 17: Switchgear and controlgear.

This first edition cancels and replaces the first edition of IEC/TR 61639:1996 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) transfer from technical report to international standard;
b) the minimum voltage rating was changed from 72,5 kV to above 52 kV;
c) update of normative references;
d) definition of insulated junction including limit of supply;

e) definition of dielectric test of gas-insulated metal-enclosed switchgear for transformer connection in a three phase enclosure;

f) addition of interface tolerances at transformer side;

g) addition of transformer tolerances in service;

h) addition of exceptional loads for bushings and flanges;

i) consideration of oil- and gas-insulated transformers;

j) inclusion of three-phase enclosed direct connections.

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

FDIS	Report on voting
17C/596/FDIS	17C/600/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 in the IEC 62271 series, published under the general title *High-voltage switchgear and controlgear*, can be found 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

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

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 211: Direct connection between power transformers and gas-insulated metal-enclosed switchgear for rated voltages above 52 kV

1 General

1.1 Scope

This part of IEC 62271 is applicable to single and three phase direct connections between gas-insulated metal-enclosed switchgear (GIS) for rated voltages above 52 kV and transformer arrangements to establish electrical and mechanical interchange ability and to determine the limits of supply of for the transformer connection.

Direct connections are immersed on one end in the transformer oil or insulating gas and on the other end in the insulating gas of the switchgear.

Transformer arrangements are single-phase transformers with single-phase enclosed arrangement, three-phase transformers with three single-phase enclosed arrangements or three-phase transformers with a three-phase enclosed arrangement with three transformer bushings.

The connection satisfies the requirements of IEC 62271-203 for gas-insulated metal-enclosed switchgear, IEC 60076 for power transformer and IEC 60137 for completely immersed bushings.

For the purpose of this international standard the term "switchgear" is used for "gas-insulated metal-enclosed switchgear".

1.2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60076 (all parts), *Power transformers*

IEC 60137:2008, *Insulated bushings for alternating voltages above 1 000 V*

IEC 61936-1, *Power installations exceeding 1 kV a.c. – Part 1: Common rules*

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 kV*

IEC 62271-207, *High-voltage switchgear and controlgear – Part 207: Seismic qualification for gas-insulated switchgear assemblies for rated voltages above 52 kV*