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Standards

Irish Standard Recommendation
S.R. CLC IEC/TR 62271-307:2019

High-voltage switchgear and controlgear -
Part 307: Guidance for the extension of
validity of type tests of AC metal and
solid-insulation enclosed switchgear and
controlgear for rated voltages above 1 kV
and up to and including 52 kV

S.R. CLC IEC/TR 62271-307:2019

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National Foreword

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TECHNICAL REPORT

CLC IEC/TR 62271-307

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

July 2019

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English Version

**High-voltage switchgear and controlgear - Part 307: Guidance
for the extension of validity of type tests of AC metal and solid-
insulation enclosed switchgear and controlgear for rated
voltages above 1 kV and up to and including 52 kV
(IEC/TR 62271-307:2015)**

Appareillage à haute tension - Partie 307: Lignes directrices
pour l'extension de validité des essais de type
d'appareillages en courant alternatif sous enveloppe
métallique et d'isolation solide pour tensions assignées
supérieures à 1 kV et jusqu'à 52 kV inclus
(IEC/TR 62271-307:2015)

Hochspannungs-Schaltgeräte und -Schaltanlagen - Teil
307: Leitfadens für die Erweiterung des Geltungsbereichs
von Typprüfungen von metall- und isolierstoffgekapselten
Wechselstrom-Schaltanlagen für Bemessungsspannungen
über 1 kV und bis einschließlich 52 kV
(IEC/TR 62271-307:2015)

This Technical Report was approved by CENELEC on 2019-06-17.

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

CLC IEC/TR 62271-307:2019 (E)

European foreword

This document (CLC IEC/TR 62271-307:2019) consists of the text of IEC/TR 62271-307:2015 prepared by SC 17C "Assemblies" of IEC/TC 17 "High-voltage switchgear and controlgear".

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

IEC 60865-1	NOTE	Harmonized as EN 60865-1
IEC 60071-1:2006	NOTE	Harmonized as EN 60071-1:2006 (not modified)
IEC 60071-1:2006/A1:2010	NOTE	Harmonized as EN 60071-1:2006/A1:2010 (not modified)

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.

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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 60050-441	1984	International Electrotechnical Vocabulary. - Switchgear, controlgear and fuses	-	-
+ A1	2000		-	-
IEC 62271-1	2007	High-voltage switchgear and controlgear -- Part 1: Common specifications	EN 62271-1	2008
+ A1	2011		+ A1	2011
IEC 62271-200	2011	High-voltage switchgear and controlgear - Part 200: AC metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV	EN 62271-200	2012
IEC 62271-201	2014	High-voltage switchgear and controlgear - Part 201: AC solid-insulation enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV	EN 62271-201	2014

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solide pour tensions assignées supérieures à 1 kV et jusqu'à 52 kV inclus**



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TECHNICAL REPORT

RAPPORT TECHNIQUE



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 307: Guidance for the extension of validity of type tests of AC metal and solid-insulation enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV

FOREWORD

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IEC TR 62271-307, which is a technical report, has been prepared by subcommittee 17C: Assemblies, of IEC technical committee 17: High-voltage switchgear and controlgear.

This Technical Report is to be read in conjunction with IEC 62271-200 published in 2011 and IEC 62271-201 published in 2014.

The text of this Technical Report is based on the following documents:

Enquiry draft	Report on voting
17C/625/DTR	17C/632/RVC

Full information on the voting for the approval of this Technical Report 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.

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HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 307: Guidance for the extension of validity of type tests of AC metal and solid-insulation enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV

1 General

1.1 Scope

This Part of IEC 62271, which is a Technical Report, refers to prefabricated metal-enclosed and solid-insulation enclosed (both hereinafter called enclosed) switchgear and controlgear assemblies for alternating current of rated voltages above 1 kV and up to and including 52 kV as specified in IEC 62271-200 and IEC 62271-201, and to other equipment included in the same enclosure with any possible mutual influence.

This Technical Report may be used for the extension of the validity of type tests performed on one test object with a defined set of ratings to another switchgear assembly of the same family with a different set of ratings or different arrangements of components. It supports the selection of representative test objects composed of functional units of a family of switchgear and controlgear aimed at the optimization of type tests in order to perform a consistent conformity assessment.

This Technical Report utilises a combination of sound technical and physical principles, manufacturer and user experience and calculations to establish guidance for the extension of validity of type tests, covering various design and rating aspects.

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 60050-441:1984, *International Electrotechnical Vocabulary. Switchgear, controlgear and fuses*

IEC 60050-441:1984/AMD1:2000

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

IEC 62271-1:2007/AMD1:2011

IEC 62271-200:2011, *High-voltage switchgear and controlgear – Part 200: AC metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV*

IEC 62271-201:2014, *High-voltage switchgear and controlgear – Part 201: AC solid-insulation enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV*

2 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-441, IEC 62271-1, IEC 62271-200, IEC 62271-201, as well as the following apply.

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