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INTERNATIONAL STANDARD



**High-voltage switchgear and controlgear –
Part 112: Alternating current high-speed earthing switches for secondary arc
extinction on transmission lines**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Normal and special service conditions	8
5 Ratings	8
6 Design and construction	11
7 Type tests	13
8 Routine tests	17
9 Guide to the selection of HSESs (informative)	17
10 Information to be given with enquiries, tenders and orders (informative)	17
10 Rules for transport, storage, installation, operation and maintenance	17
11 Transport, storage, installation, operating instructions and maintenance	17
12 Safety	18
Annex A (informative) Background information on the use of HSESs	19
Annex B (informative) Induced current and voltage conditions for other cases	25
Bibliography	30
Figure 1 – Explanation of a multi-phase auto-reclosing scheme	7
Figure 2 – Timing chart of HSES and circuit-breakers	10
Figure A.1 – Single-line diagram of a power system	20
Figure A.2 – Timing chart of the HSESs in relation to the transmission line circuit-breakers	20
Figure A.3 – Typical timing chart showing the time between fault initiation and a successful re-close of the transmission line circuit-breakers	22
Figure B.1 – System condition to explain successive fault	26
Figure B.2 – Example of waveforms of delayed current zero phenomena	26
Figure B.3 – Typical test circuit for electromagnetic coupling test-duty of a HSES with delayed current zero crossings	28
Figure B.4 – Typical test circuit for electrostatic coupling test-duty of HSES with delayed current zero crossings	28
Table 1 – Standardized values of rated induced currents and voltages	12
Table 2 – Items to be listed on nameplate of a HSES	15
Table 1 – Nameplate information	12
Table 2 – Standard values of rated induced currents and voltages	15
Table A.1 – Comparison of earthing switches	23
Table A.2 – Comparison of a four-legged reactor and HSES	24
Table B.1 – Preferred values for single-phase earth fault with delayed current zero phenomena in the presence of a successive fault	27
Table B.2 – Preferred values for multi-phase earth faults in a double-circuit system	29
Table B.3 – Preferred values for covering the cases of categories 0 and 1	29

INTERNATIONAL ELECTROTECHNICAL COMMISSION

HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

**Part 112: Alternating current high-speed earthing switches
for secondary arc extinction on transmission lines**

FOREWORD

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IEC 62271-112 has been prepared by subcommittee 17A: Switching devices, of IEC technical committee 17: High-voltage switchgear and controlgear. It is an International Standard.

This second edition cancels and replaces the first edition published in 2013. This edition constitutes a technical revision.

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

The document has been updated to the second edition of IEC 62271-1:2017.

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

FDIS	Report on voting
17A/1311/FDIS	17A/1314/RVD

Full information on the voting for its approval 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.

This International Standard should be read in conjunction with IEC 62271-1:2017, to which it refers and which is applicable, unless otherwise specified. In order to simplify the indication of corresponding requirements, the same numbering of clauses and subclauses is used as in IEC 62271-1:2017. Amendments to these clauses and subclauses are given under the same numbering, whilst additional subclauses, are numbered from 101.

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 112: Alternating current high-speed earthing switches for secondary arc extinction on transmission lines

~~1~~ **General**

1 Scope

This part of IEC 62271 applies to AC high-speed earthing switches (hereinafter termed HSES) designed for indoor and outdoor installation and for operation at service frequencies of 50 Hz and 60 Hz on systems having rated voltages of 550 kV and above.

HSESs described in this document are intended to extinguish the secondary arc remaining after clearing faults on transmission lines by the circuit-breakers.

For more detailed information on HSESs, refer to Annex A.

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

IEC 60050-441:1984/AMD1:2000

IEC 62271-1:~~2007~~2017, *High-voltage switchgear and controlgear – Part 1: Common specifications for alternating current switchgear and controlgear*

IEC 62271-100:~~2008~~2021, *High-voltage switchgear and controlgear – Part 100: Alternating current circuit-breakers*

IEC 62271-102:~~2004~~2018, *High-voltage switchgear and controlgear – Part 102: Alternating current disconnectors and earthing switches*

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

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**High-voltage switchgear and controlgear –
Part 112: Alternating current high-speed earthing switches for secondary arc
extinction on transmission lines**

**Appareillage à haute tension –
Partie 112: Sectionneurs de terre rapides à courant alternatif pour l’extinction de
l’arc secondaire sur les lignes de transport**

CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Normal and special service conditions	8
5 Ratings	8
6 Design and construction	10
7 Type tests	12
8 Routine tests	15
9 Guide to the selection of HSESs (informative)	15
10 Information to be given with enquiries, tenders and orders (informative)	15
11 Transport, storage, installation, operating instructions and maintenance	15
12 Safety	16
Annex A (informative) Background information on the use of HSESs	17
Annex B (informative) Induced current and voltage conditions for other cases	22
Bibliography	27
Figure 1 – Explanation of a multi-phase auto-reclosing scheme	7
Figure 2 – Timing chart of HSES and circuit-breakers	10
Figure A.1 – Single-line diagram of a power system	18
Figure A.2 – Timing chart of the HSESs in relation to the transmission line circuit-breakers	18
Figure A.3 – Typical timing chart showing the time between fault initiation and a successful re-close of the transmission line circuit-breakers	19
Figure B.1 – System condition to explain successive fault	23
Figure B.2 – Example of waveforms of delayed current zero phenomena	23
Figure B.3 – Typical test circuit for electromagnetic coupling test-duty of a HSES with delayed current zero crossings	25
Figure B.4 – Typical test circuit for electrostatic coupling test-duty of HSES with delayed current zero crossings	25
Table 1 – Nameplate information	11
Table 2 – Standard values of rated induced currents and voltages	13
Table A.1 – Comparison of earthing switches	20
Table A.2 – Comparison of a four-legged reactor and HSES	21
Table B.1 – Preferred values for single-phase earth fault with delayed current zero phenomena in the presence of a successive fault	24
Table B.2 – Preferred values for multi-phase earth faults in a double-circuit system	26
Table B.3 – Preferred values for covering the cases of categories 0 and 1	26

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Part 112: Alternating current high-speed earthing switches for secondary arc extinction on transmission lines

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IEC 62271-102:2018, *High-voltage switchgear and controlgear – Part 102: Alternating current disconnectors and earthing switches*

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*

SOMMAIRE

AVANT-PROPOS.....	30
1 Domaine d'application	32
2 Références normatives	32
3 Termes et définitions	32
4 Conditions normales et spéciales de service	35
5 Caractéristiques assignées.....	35
6 Conception et construction	37
7 Essais de type	39
8 Essais individuels de série	42
9 Guide pour le choix des HSES (informatif).....	42
10 Renseignements à donner dans les appels d'offres, les soumissions et les commandes (informatif).....	43
11 Instructions pour le transport, le stockage, l'installation, la manœuvre et la maintenance.....	43
12 Sécurité.....	43
Annexe A (informative) Informations générales relatives à l'utilisation des HSES.....	44
Annexe B (informative) Conditions de courant et de tension induits pour les autres cas.....	49
Bibliographie.....	54
Figure 1 – Explication d'une stratégie de refermeture automatique à plusieurs phases	34
Figure 2 – Chronogramme des HSES et des disjoncteurs	37
Figure A.1 – Schéma unifilaire d'un réseau.....	45
Figure A.2 – Chronogramme des HSES par rapport aux disjoncteurs de la ligne de transport.....	45
Figure A.3 – Chronogramme typique présentant la durée entre l'initiation du défaut et une refermeture réussie des disjoncteurs de la ligne de transport.....	46
Figure B.1 – Condition du réseau pour expliquer le défaut successif.....	50
Figure B.2 – Exemple de formes d'onde des phénomènes de passages par zéro retardés du courant.....	50
Figure B.3 – Circuit d'essai typique pour essais électromagnétiques d'un HSES avec des passages par zéro retardés du courant	52
Figure B.4 – Circuit d'essai typique pour essais électrostatiques d'un HSES avec des passages par zéro retardés du courant	52
Tableau 1 – Informations sur la plaque signalétique.....	38
Tableau 2 – Valeurs normalisées des courants et des tensions induits assignés.....	40
Tableau A.1 – Comparaison des sectionneurs de terre	47
Tableau A.2 – Comparaison d'une bobine d'inductance à quatre colonnes et d'un HSES.....	48
Tableau B.1 – Valeurs préférentielles pour des défauts à la terre sur une seule phase avec des phénomènes de passages par zéro retardés du courant en présence d'un défaut successif.....	51
Tableau B.2 – Valeurs préférentielles pour des défauts à la terre sur plusieurs phases dans un réseau à double circuit	53

Tableau B.3 – Valeurs préférentielles pour couvrir les cas des catégories 0 et 153

COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

APPAREILLAGE À HAUTE TENSION –

Partie 112: Sectionneurs de terre rapides à courant alternatif pour l'extinction de l'arc secondaire sur les lignes de transport

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L'IEC 62271-112 a été établie par le sous-comité 17A: Appareils de connexion, du comité d'études 17 de l'IEC: Appareillage haute tension. Il s'agit d'une Norme internationale.

Cette deuxième édition annule et remplace la première édition parue en 2013. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

Le document a été mis à jour par rapport à la deuxième édition de l'IEC 62271-1:2017.

Le texte de cette Norme internationale est issu des documents suivants:

Projet	Rapport de vote
17A/1311/FDIS	17A/1314/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous www.iec.ch/members_experts/refdocs. Les principaux types de documents développés par l'IEC sont décrits plus en détail sous www.iec.ch/standardsdev/publications.

Il convient que la présente Norme internationale soit lue conjointement avec l'IEC 62271-1:2017, à laquelle elle fait référence et qui est applicable, sauf indication contraire. Pour faciliter le repérage des exigences correspondantes, la numérotation utilisée pour les articles et les paragraphes est identique à celle de l'IEC 62271-1:2017. Les modifications de ces articles et de ces paragraphes ont des références identiques; les paragraphes supplémentaires qui n'ont pas d'équivalents sont numérotés à partir de 101.

Une liste de toutes les parties de la série IEC 62271, publiées sous le titre général *Appareillage à haute tension*, peut être consultée sur le site web de l'IEC.

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APPAREILLAGE À HAUTE TENSION –

Partie 112: Sectionneurs de terre rapides à courant alternatif pour l'extinction de l'arc secondaire sur les lignes de transport

1 Domaine d'application

La présente partie de l'IEC 62271 s'applique aux sectionneurs de terre rapides à courant alternatif (nommés ci-après HSES) conçus pour les installations intérieures et extérieures et pour fonctionner à des fréquences de 50 Hz et 60 Hz sur des réseaux de tensions assignées supérieures ou égales à 550 kV.

Les HSES décrits dans le présent document sont destinés à supprimer l'arc secondaire demeurant après l'élimination des défauts sur les lignes de transport par les disjoncteurs.

Pour de plus amples informations sur les HSES, voir l'Annexe A.

2 Références normatives

Les documents suivants sont cités dans le texte de sorte qu'ils constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 60050-441:1984, *Vocabulaire électrotechnique international – Chapitre 441: Appareillage et fusibles*

IEC 60050-441:1984/AMD1:2000

IEC 62271-1:2017, *Appareillage à haute tension – Partie 1: Spécifications communes pour appareillage à courant alternatif*

IEC 62271-100:2021, *Appareillage à haute tension – Partie 100: Disjoncteurs à courant alternatif à haute tension*

IEC 62271-102:2018, *Appareillage à haute tension – Partie 102: Sectionneurs et sectionneurs de terre à courant alternatif*

IEC 62271-200:2011, *Appareillage à haute tension – Partie 200: Appareillage sous enveloppe métallique pour courant alternatif de tensions assignées supérieures à 1 kV et inférieures ou égales à 52 kV*