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## REDLINE VERSION

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### **Kopplingsapparater för spänning över 1 kV – Del 112: Snabbkopplande jordningskopplare för växelström, avsedda för släckning av sekundära ljusbågar på transmissionsledningar**

*High-voltage switchgear and controlgear –*

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

En så kallad "Redline version" (RLV) innehåller både den fastställda IEC-standarden och en ändringsmarkerad standard. Alla tillägg och borttagningar sedan den tidigare utgåvan är markerade med färg. Med en RLV sparar du mycket tid när du ska identifiera och bedöma aktuella ändringar i standarden. SEK Svensk Elstandard kan bara ge ut en RLV i de fall den finns tillgänglig från IEC.

# INTERNATIONAL STANDARD



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**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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ICS 29.130.10; 29.130.99

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## 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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**This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 62271-112:2013. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.**

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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://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.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](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.

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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~~

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*High-voltage switchgear and controlgear –*

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

Som svensk standard gäller europastandarden EN IEC 62271-112:2021. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 62271-112:2021.

### **Nationellt förord**

Europastandarden EN IEC 62271-112:2021

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 62271-112, Second edition, 2021 - High-voltage switchgear and controlgear - Part 112: Alternating current high-speed earthing switches for secondary arc extinction on transmission lines**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden ska användas tillsammans med SS-EN 62271-1, utgåva 2, 2018.

Tidigare fastställd svensk standard SS-EN 62271-112, utgåva 1, 2014, gäller ej fr o m 2024-08-17.

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English Version

**High-voltage switchgear and controlgear - Part 112: Alternating  
current high-speed earthing switches for secondary arc  
extinction on transmission lines  
(IEC 62271-112:2021)**

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  
(IEC 62271-112:2021)

Hochspannungs-Schaltgeräte und -Schaltanlagen - Teil  
112: Schnellschaltende Wechselstrom-Erdungsschalter  
zum Löschen von sekundären Lichtbögen auf Freileitungen  
(IEC 62271-112:2021)

This European Standard was approved by CENELEC on 2021-08-17. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

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

## **European foreword**

The text of document 17A/1311/FDIS, future edition 2 of IEC 62271-112, prepared by SC 17A “Switching devices” of IEC/TC 17 “High-voltage switchgear and controlgear” was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62271-112:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-05-17 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2024-08-17 document have to be withdrawn

This document supersedes EN 62271-112:2013 and all of its amendments and corrigenda (if any).

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Any feedback and questions on this document should be directed to the users’ national committee. A complete listing of these bodies can be found on the CENELEC website.

## **Endorsement notice**

The text of the International Standard IEC 62271-112:2021 was approved by CENELEC as a European Standard without any modification.

## 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 Where 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 60050-441	1984	International Electrotechnical Vocabulary- (IEV) - Part 441: Switchgear, controlgear and fuses	-	-
+ A1	2000		-	-
IEC 62271-1	2017	High-voltage switchgear and controlgear -EN 62271-1 Part 1: Common specifications for alternating current switchgear and controlgear	-EN 62271-1	2017
IEC 62271-100	2021	High-voltage switchgear and controlgear -- Part 100: Alternating-current circuit-breakers	-	-
IEC 62271-102	2018	High-voltage switchgear and controlgear -EN IEC 62271-102 Part 102: Alternating current disconnectors and earthing switches	-EN IEC 62271-102	2018
IEC 62271-200	2011	High-voltage switchgear and controlgear -EN 62271-200 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

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



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**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  
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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 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.

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

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*