

High-voltage switchgear and controlgear —

**Part 108: High-voltage alternating
current disconnecting circuit-breakers
for rated voltages of 72,5 kV and above**

The European Standard EN 62271-108:2006 has the status of a
British Standard

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National foreword

This British Standard is the official English language version of EN 62271-108:2006. It is identical with IEC 62271-108:2005.

The UK participation in its preparation was entrusted to Technical Committee PEL/17/1, High voltage switchgear and controlgear, which has the responsibility to:

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- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
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Summary of pages

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High-voltage switchgear and controlgear
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(IEC 62271-108:2005)

Appareillage à haute tension
Partie 108: Disjoncteurs-sectionneurs
à courant alternatif à haute tension
de tensions assignées supérieures
ou égales à 72,5 kV
(CEI 62271-108:2005)

Hochspannungs-Schaltgeräte
und -Schaltanlagen
Teil 108: Hochspannungs-Wechselstrom-
Leistungsschalter mit Trennfunktion
für Bemessungsspannungen
größer oder gleich 72,5 kV
(IEC 62271-108:2005)

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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.

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CENELEC

European Committee for Electrotechnical Standardization
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Foreword

The text of document 17A/742/FDIS, future edition 1 of IEC 62271-108, prepared by SC 17A, High-voltage switchgear and controlgear, of IEC TC 17, Switchgear and controlgear, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62271-108 on 2005-12-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2006-10-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2008-12-01

This European Standard should be read in conjunction with EN 62271-100:2001, EN 62271-102:2002 and EN 60694:1996, 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 EN 60694. Additional subclauses are numbered from 101.

This European Standard makes reference to International Standards. Where the International Standard referred to has been endorsed as a European Standard or a home-grown European Standard exists, this European Standard shall be applied instead. Pertinent information can be found on the CENELEC web site.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62271-108:2005 was approved by CENELEC as a European Standard without any modification.

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High-voltage switchgear and controlgear –

Part 108:

**High-voltage alternating current disconnecting
circuit-breakers for rated voltages of 72,5 kV
and above**



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HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 108: High-voltage alternating current disconnecting circuit-breakers for rated voltages of 72,5 kV and above

1 General

1.1 Scope and object

This part of IEC 62271 applies to high-voltage alternating current disconnecting circuit-breakers for operation at frequencies of 50 Hz and 60 Hz on systems having voltages of 72,5 kV and above.

This standard identifies which requirements of IEC 60694, IEC 62271-100 and IEC 62271-102 standards are applicable. It also gives the additional requirements specific to these devices.

This standard covers a circuit-breaker which, when in the open position, satisfies the requirements of both a circuit-breaker and a disconnector.

As there is interaction between the requirements of the separate functions it is necessary to consider the standardisation of requirements. This standard details the requirements for a disconnecting circuit-breaker, identifying where these differ from the separate requirements of a discrete circuit-breaker and a disconnector.

NOTE For design examples of disconnecting circuit-breakers, refer to Annex A.

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 60694:1996, *Common specifications for high-voltage switchgear and controlgear standards*

IEC 62271-100:2001, *High-voltage switchgear and controlgear – Part 100: High-voltage alternating-current circuit-breakers*

IEC 62271-102:2001, *High-voltage switchgear and controlgear – Part 102: Alternating-current disconnectors and earthing switches*

IEC 62271-310:2004, *High-voltage switchgear and controlgear – Part 310: Electrical endurance testing for circuit-breakers of rated voltage 72,5 kV and above*

2 Normal and special service conditions

Clause 2 of IEC 60694 is applicable.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

NOTE 1 Certain definitions taken from IEC 60050(441), IEC 60050(604) and IEC 60694 are recalled here for ease of reference.

NOTE 2 Additional definitions given here are classified in a manner that aligns with the classification used in IEC 60050(441).

3.1 General terms

3.1.1

switchgear and controlgear

general term covering switching devices and their combination with associated control, measuring, protective and regulating equipment, also assemblies of such devices and equipment with associated interconnections, accessories, enclosures and supporting structures

[IEV 441-11-01]

3.2 Assemblies of switchgear and controlgear

No particular definitions.

3.3 Parts of assemblies

No particular definitions.

3.4 Switching devices

3.4.101

circuit-breaker

mechanical switching device, capable of making, carrying and breaking currents under normal circuit conditions and also making, carrying for a specified time and breaking currents under specified abnormal circuit conditions such as those of short circuit

[IEV 441-14-20]

3.4.102

disconnector

mechanical switching device which provides, in the open position, an isolating distance in accordance with specified requirements

[IEV 441-14-05]

3.4.103

disconnecting circuit-breaker

circuit-breaker satisfying the requirements of a disconnector, when the contacts are in open position

3.5 Parts of switchgear and controlgear

No particular definitions.