

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

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

**Appareillage à haute tension –
Partie 102: Sectionneurs et sectionneurs de terre à courant alternatif**



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FOREWORD

This amendment has been prepared by subcommittee 17A: High-voltage switchgear and controlgear, of IEC technical committee 17: Switchgear and controlgear.

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

FDIS	Report on voting
17A/972/FDIS	17A/978/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

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- withdrawn,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.

The contents of the corrigendum of January 2012 have been included in this copy.

1.2 Normative references

Add the following new references to the existing list:

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

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

3.4.101 disconnecter

Replace the content of Notes 1 and 2 as follows:

NOTE 1 "Negligible current" implies currents such as the capacitive currents of bushings, busbars, connections, very short lengths of cable, currents of permanently connected grading impedances of circuit-breakers and currents of voltage transformers and dividers (see also IEC 62271-305). For rated voltages of 420 kV and below, a current not exceeding 0,5 A is a negligible current for the purpose of this definition; for rated voltage above 420 kV and currents exceeding 0,5 A, the manufacturer should be consulted. "No significant change in voltage" refers to such applications as the by-passing of induction voltage regulators or circuit-breakers and bus transfer.

NOTE 2 For a disconnecter having a rated voltage of 52 kV and above, a rated ability of bus transfer current switching may be assigned.

3.4.105 earthing switch

Replace the existing text by the following:

IEV 441-14-11 is applicable with the following additional notes

NOTE 101 An earthing switch having a rated voltage of 52 kV and above may have a rating for switching and carrying induced currents.

NOTE 102 These devices may sometimes be operated against short-circuit. The different classes of earthing switches are related to the number of short-circuit making operations.

NOTE 103 For special applications such as fault initiating earthing switches the test procedures and the number of tests may be agreed upon between the manufacturer and the user.

3.4.105.1 earthing switch class E0

Replace the existing definition by the following new definition:

earthing switch suitable for applications in distribution and transmission systems fulfilling the general requirements of this standard, without a short-circuit making capability

3.4.105.2 earthing switch class E1

Replace the existing definition by the following new definition:

earthing switch suitable for applications in distribution and transmission systems fulfilling the general requirements of this standard, with the capability to withstand two short-circuit making operations

3.4.105.3 earthing switch class E2

Replace the existing term, definition and note by the following new term, definition and note:

earthing switch class E2 (for earthing switches up to and including 52 kV)
earthing switch suitable for applications in distribution and transmission systems fulfilling the general requirements of this standard, with the capability to withstand five short-circuit making operations

NOTE The increased number of making operations in Class E2 is restricted to voltages up to and including 52 kV only depending on the operating conditions and the protection systems typical to such networks.

Add, after definition 3.4.105.3, the following new definitions 3.4.105.4, 3.4.105.5 and 3.4.105.6:

3.4.105.4 earthing switch class M0 (for earthing switches)

earthing switch suitable for applications in distribution and transmission systems fulfilling the general requirements of this standard, with the capability to withstand 1 000 operating cycles

3.4.105.5 combined function earthing switch

earthing switch having a common contact system for earthing and at least one of the following functions:

- disconnecting;
- making and/or breaking of load currents;
- making and/or breaking of currents up to the rated short-circuit current

3.4.105.6 toggle point

point beyond which any further movement of the charging mechanism causes the stored energy to be released

3.6.106 dependent manual operation (of a mechanical switching device)

Add the following note: