

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**High-voltage switchgear and controlgear –  
Part 106: Alternating current contactors, contactor-based controllers and motor-  
starters**

**Appareillage à haute tension –  
Partie 106: Contacteurs, combinés de démarrage à contacteurs et démarreurs de  
moteurs, pour courant alternatif**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

**Part 106: Alternating current contactors,  
contactor-based controllers and motor-starters**

## FOREWORD

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International Standard IEC 62271-106 has been prepared by subcommittee 17A: High-voltage switchgear and controlgear, of IEC technical committee 17: Switchgear and controlgear.

This standard cancels and replaces the second edition of IEC 60470 published in 1999. It constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 60470:1999:

- Scope and object: The voltage range covered by the standard was expanded from 12 kV to 24 kV. Overload relay calibration and testing is not covered by this standard.
- 3 Terms and definitions: Added definitions for capacitor switching classes.
- 4.1 Rated voltage: Added 15, 17,5 and 24 kV as standard voltage values.
- 4.109.2 Starting duty of reduced-voltage starters: Added ratings for autotransformer and reactor starters (was in the testing section).

- 4.112 Rated capacitive switching currents: Added capacitor switching current ratings.
- 5.101 Protective relays: Removed the requirements for overload relays. This section is obsolete since there are only a few MV starters fitted with thermal overload relays and electronic relays have their own standards.
- 6.2.5 Application of the test voltage and test conditions (former 6.2.2 b)): Changed wording of requirement for impulse across the open gap of vacuum contactors.
- 6.4.2 Auxiliary circuits: The requirement for resistance checks of auxiliary circuits was deleted.
- 6.5.5.104 Temperature rise of the auto-transformer or reactor for two-step auto-transformer or reactor starters: Reworded to transfer ratings to subclause 4.109.2.
- 6.102.9 Condition following making and breaking tests: Gave specific direction as to what the tolerance should be based on where the resistance was to be checked.
- 6.104 Short-circuit current making and breaking tests: Clarified test conditions for short-circuit testing.
- 6.109 Capacitive current switching tests: Added capacitive current switching tests.
- Annex B: Added Table B.1 – Tolerances on test quantities for type test.

This standard is to be read in conjunction with IEC 62271-1:2007, to which it refers and which is applicable unless otherwise specified in this standard. In order to simplify the indication of corresponding requirements, the same numbering of clauses and subclauses is used as in IEC 62271-1. Amendments to these clauses and subclauses are given under the same references whilst additional subclauses are numbered from 101.

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

FDIS	Report on voting
17A/971/FDIS	17A/976/RVD

Full information on the voting for the approval of this standard 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.

The list of all parts of the IEC 62271 series 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 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 February 2014 have been included in this copy.