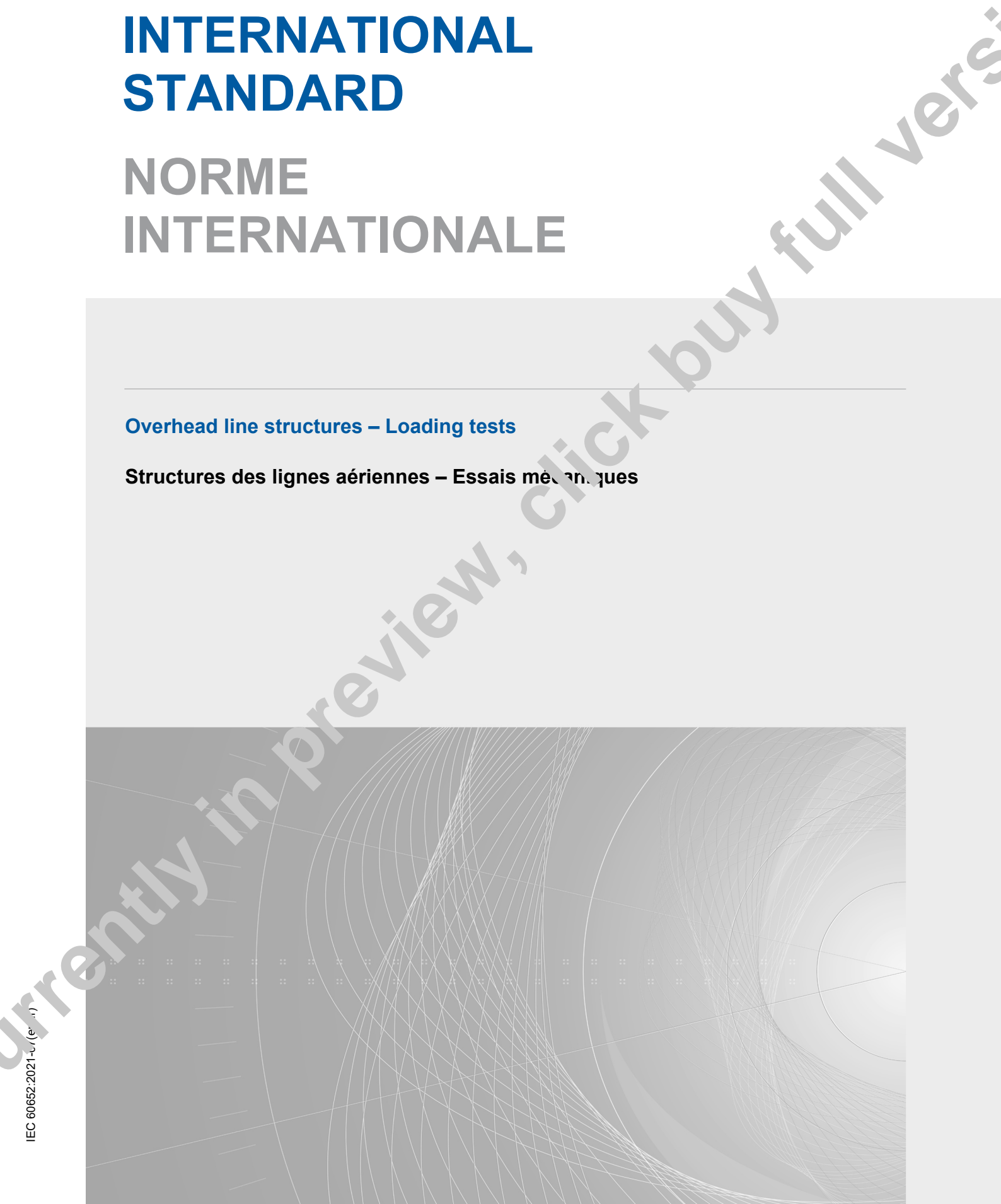


INTERNATIONAL STANDARD

NORME INTERNATIONALE

Overhead line structures – Loading tests

Structures des lignes aériennes – Essais mécaniques





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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OVERHEAD LINE STRUCTURES – LOADING TESTS

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). The preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations co-operating with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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IEC 60652 has been prepared by IEC technical committee 11: Overhead lines. It is an International Standard.

This third edition cancels and replaces the second edition published in 2002. This edition constitutes a technical revision.

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

- a) Title modified;
- b) Added reference to CIGRE Brochure 399;
- c) In Clause 7, added test limitation for wind speed and direction during testing;
- d) In paragraph 10.5, added load increments for destruction tests;
- e) In paragraph 10.7, added a requirement for an agreement between client and testing station when testing supports made of creep-sensitive materials;
- f) In Clause 17, added requirements for sampling procedure to be provided in the test report.

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

FDIS	Report on voting
11/276/FDIS	11/277/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.

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 in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

OVERHEAD LINE STRUCTURES – LOADING TESTS

1 Scope

This document specifies the methods and procedures of testing supports for overhead lines.

It applies to the testing of supports and structures of overhead lines.

There is no restriction on the type of material used in the fabrication of the supports which may include, but not be limited to, metallic alloys, concrete, timber, laminated wood and composite materials. If required by the client, this document can also be applied to the testing of telecommunication supports, railway/tramway overhead electrification supports, electrical substation gantries, street lighting columns, wind turbine towers, ski-lift supports, etc.

Tests on reduced scale models of supports are not covered by this document.

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 60050-466:1990, *International Electrotechnical Vocabulary (IEV) – Part 466: Overhead lines*

IEC 60050-466:1990/AMD1:2020

ISO/IEC 17025:2017, *General requirements for the competence of testing and calibration laboratories*

CIGRE Brochure 399:2009, *Improvement on the Tower Testing Methodology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-466:1990 and the following apply.

3.1

client

organization which contracts with the testing station and provides the test specification

3.2

design load

load for which the support has been designed

3.3

failure load

limit state loads value at which the support cannot carry any additional load as determined during the destruction test of the support