

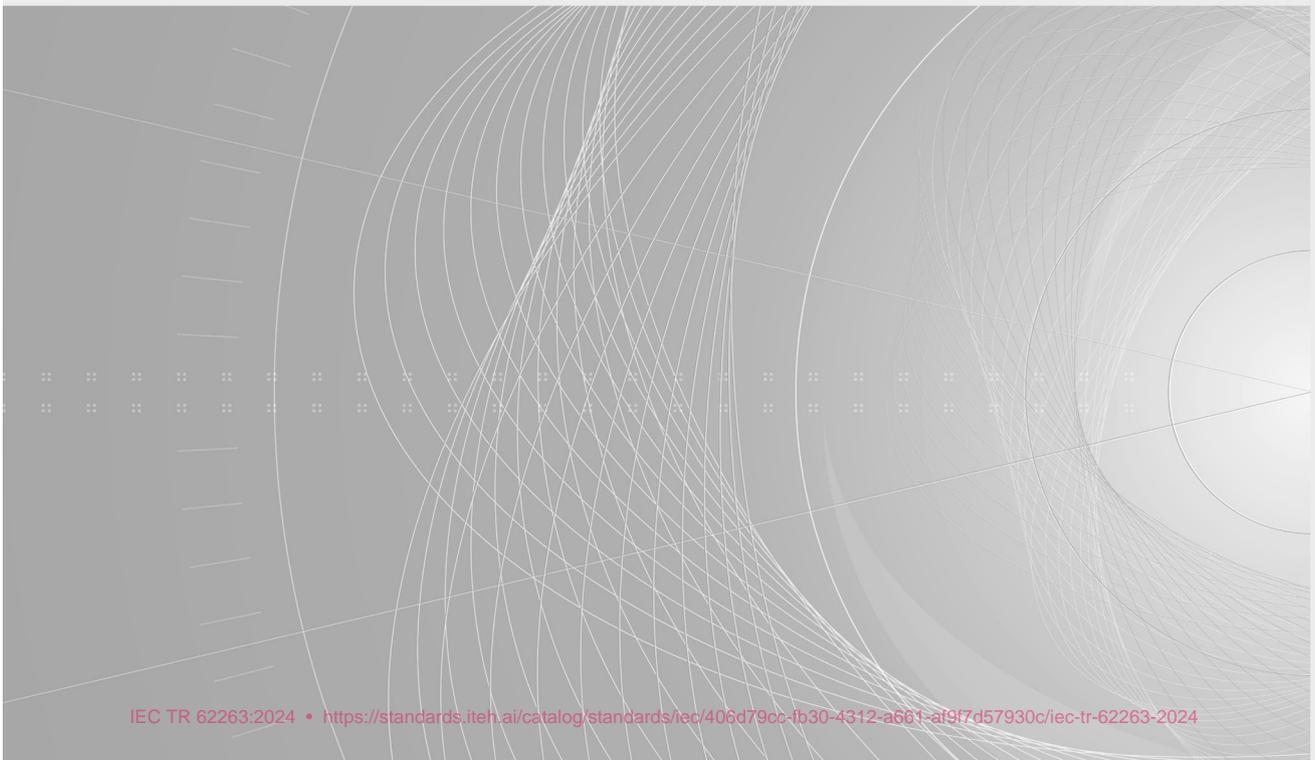
# TECHNICAL REPORT



**Live working – Guidelines for the installation and maintenance of optical fibre  
cables on overhead power lines**

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IEC Secretariat  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland

Tel.: +41 22 919 02 11  
[info@iec.ch](mailto:info@iec.ch)  
[www.iec.ch](http://www.iec.ch)

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# INTERNATIONAL ELECTROTECHNICAL COMMISSION

## LIVE WORKING – GUIDELINES FOR THE INSTALLATION AND MAINTENANCE OF OPTICAL FIBRE CABLES ON OVERHEAD POWER LINES

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IEC TR 62263 has been prepared by IEC technical committee 78: Live working. It is a Technical Report.

This second edition cancels and replaces the first edition published in 2005. This edition constitutes a technical revision.

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

- a) it incorporates some technical changes to update equipment work methods and procedures, bringing them in line with the state of the art;
- b) the content of the previous edition is kept but without mandatory terms as required by IEC ISO Directives 2 for a Technical Report.

The text of this Technical Report is based on the following documents:

| Draft       | Report on voting |
|-------------|------------------|
| 78/1468/DTR | 78/1481/RVDTR    |

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 Technical Report 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/publications](http://www.iec.ch/publications).

Words in *italics* in the text are defined in Clause 3.

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

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## INTRODUCTION

This document discusses general procedures for the installation and maintenance of optical fibre *cables* on single and multi-circuit overhead power lines. Due to the hazards involved in *stringing* near *energized* lines, the general concepts of electric and magnetic induction are presented.

The overall intent of this document is to provide state of the art methods in an informative manner recognizing that there are several procedural variations within the industry. There are also multiple standards and regulatory jurisdictions which specify methods and requirements beyond the scope of this document.

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# LIVE WORKING – GUIDELINES FOR THE INSTALLATION AND MAINTENANCE OF OPTICAL FIBRE CABLES ON OVERHEAD POWER LINES

## 1 Scope

This document covers procedures for the installation and maintenance of optical fibre *cables* on single and multi-circuit overhead power lines, including:

- *optical ground wire (OPGW) fibre cable*;
- *optical phase conductor fibre cable (OPPC)*;
- *optical attached fibre cable (OPAC)*;
- *all dielectric self supporting (ADSS) optical fibre cable*.

Relevant electrical hazards are also discussed.

## 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* (available at [www.electropedia.org](http://www.electropedia.org))

IEC 60050–651:1999, *International Electrotechnical Vocabulary (IEV) – Part 651: Live working* (available at [www.electropedia.org](http://www.electropedia.org))

IEC 60743, *Live working – Terminology for tools, devices and equipment*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-466, IEC 60050-651, IEC 60743 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

NOTE Terminology for equipment and procedures associated with the installation of overhead *conductors* and *earth wires* varies widely throughout the utility industry.

### 3.1

#### **all dielectric self-supporting cable**

#### **ADSS cable**

optical fibre *cable* which has no metallic supporting or messenger *cable*