

INTERNATIONAL STANDARD

**Optical fibre cables –
Part 1-402: Generic specification – Basic optical cable test procedures –
Electrical test methods – Lightning test (for OPCW, OPPC and OPAC),
Method H2**





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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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IEC 60794-1-402 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics. It is an International Standard.

This first edition cancels and replaces the first edition of IEC 60794-1-24 published in 2014. This edition constitutes a technical revision.

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

- a) OPPC cables are included.

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

Draft	Report on voting
86A/2045/CDV	86A/2128/RVC

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.

A list of all the parts in the IEC 60794 series, published under the general title *Optical fibre cables*, can be found on the IEC website.

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- withdrawn,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.

INTRODUCTION

The electrical tests contained in IEC 60794-1-24:2014 will now be individually numbered in the IEC 60794-1-4xx series. Each test method is now considered to be an individual document rather than part of a multi-test method compendium. Full cross-reference details are given in IEC 60794-1-2.

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1 Scope

This part of IEC 60794 applies to the test intended to evaluate the impact of a lightning strike on an optical ground wire (OPGW), optical phase conductor (OPPC) or optical attached cable (OPAC).

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 60793-1-46, *Optical fibres – Part 1-46: Measurement methods and test procedures – Monitoring of changes in optical transmittance*

IEC 60794-1-1, *Optical fibre cables – Part 1-1: Generic specification – General*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the definitions given in IEC 60794-1-1 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>

3.2 Abbreviated terms

EDS – every day stress

OPAC – optical attached cable

OPGW – optical ground wire

OPPC – optical phase conductor

R_{TS} – rated tensile strength

4 General

The lightning test should be carried out only for comparison between different cable designs.

In the case of an OPAC, the cable shall be installed on the messenger in order to simulate as closely as possible a real installation, and the lightning test should be carried out to determine that the sheath is not severely damaged.