IEC 60794-1-306

Edition 1.0 2023-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Optical fibre cables –
Part 1-306: Generic specification – Basic optical cable test procedures – Cable element test methods – Ribbon torsion, Method G6

Câbles à fibres optiques –
Partie 1-306: Spécification générique – Procédures fondamentales d'essai des câbles optiques – Méthodes d'essai des éléments de câbles – Torsion du ruban, méthode G6



IEC 60794-1-306:2023-09(en-fr)



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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OPTICAL FIBRE CABLES –

Part 1-306: Generic specification – Basic optical cable test procedures – Cable element test methods – Ribbon torsion, method G6

FOREWORD

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IEC 60794-1-306 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics. It is an International Standard.

This document partially cancels and replaces IEC 60794-1-23:2019.

This edition includes the following significant technical changes with respect to IEC 60794-1-23:2019:

a) change the scope, not include partially-bonded ribbon;
b) add some details to the procedure.

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

Draft	Report on voting
86A/2368/FDIS	86A/2372/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/publications.

A list of all 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- withdrawn, or
- revised.

INTRODUCTION

This document contains method G6 of IEC 60794-1-23:2019, which will be withdrawn. The system for optical fibre test methods have been restructured and renumbered. The optical cable element test methods contained in IEC 60794-1-23:2019 will now be individually numbered in the IEC 60794-1-3xx 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.

OPTICAL FIBRE CABLES –

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1 Scope

This part of IEC 60794 describes test procedures to verify the mechanical and functional integrity of the fibre ribbon structure. The test determines the capability of the ribbon to withstand torsion without delamination between optical fibre and ribbon bonding agent.

This document applies to optical fibre ribbons in optical cables for use with telecommunication equipment and devices employing similar techniques, and to optical fibre ribbons in cables having a combination of both optical fibres and electrical conductors.

This document is not applicable to partially-bonded ribbons. The method for partially-bonded ribbons is under consideration.

Throughout the document, the wording "optical cable" can also include optical fibre units, microduct fibre units, etc.

NOTE The environmental testing of optical fibre ribbon would be valuable for some applications. Useful information about suitable test methods can be found in the optical fibre standards IEC 60793-1-50, IEC 60793-1-51, IEC 60793-1-52, and IEC 60793-1-53.

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 60794-1-2, *Optical fibre cables – Part 1-2: Generic specification – Basic optical cable test procedures – General guidance*

3 Terms and definitions

No terms and definitions are listed in this document.

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

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

4 General requirements

IEC 60794-1-2 is the reference guide to test methods of all types. It shall be considered for general requirements and definitions.