

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Optical fibre cables –

**Part 1-404: Generic specification – Basic optical cable test procedures –
Electrical test methods – Current-temperature test, method H4**

Câbles à fibres optiques –

**Partie 1-404: Spécification générique – Procédures fondamentales d'essais des
câbles optiques – Méthodes d'essais électriques – Essai de
courant-température, méthode H4**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –

**Part 1-404: Generic specification –
Basic optical cable test procedures – Electrical test methods –
Current-temperature test, method H4**

FOREWORD

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IEC 60794-1-404 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics. It is an International Standard.

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

Draft	Report on voting
86A/2170/FDIS	86A/2185/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.

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- withdrawn,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

OPTICAL FIBRE CABLES –

Part 1-404: Generic specification – Basic optical cable test procedures – Electrical test methods – Current-temperature test, method H4

1 Scope

This part of IEC 60794 defines a test standard to determine the optical performance and temperature characteristics of a hybrid cable under the maximum current.

This document applies to optical phase conductor (OPPC). An optical phase conductor is made of multiple metallic wires that are exposed to the environment without any insulating or protective sheath and contain optical fibres.

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 TR 61597, *Overhead electrical conductors – Calculation methods for stranded bare conductors*

3 Terms and definitions

No terms and definitions are listed in this document.

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>

4 Method H4 – Current-temperature test

4.1 Object

The object of this test is to verify that the temperature of the sample and the attenuation of monitored optical fibres comply with the general optical requirements during the maximum current test.

4.2 Lab conditions

Tests shall be carried out in a natural convection lab, and the temperature shall be $23\text{ °C} \pm 5\text{ °C}$ without wind or solar radiation.