



IEC 61300-2-18

Edition 3.0 2023-01
REDLINE VERSION

INTERNATIONAL STANDARD



**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –
Part 2-18: Tests – Dry heat – ~~High temperature endurance~~**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 33.180.20

ISBN 978-2-8322-6376-1

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

Part 2-18: Tests – Dry heat – ~~High temperature endurance~~

FOREWORD

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IEC 61300-2-18 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics. It is an International Standard.

This third edition cancels and replaces the second 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) terms and definitions updated according to IEC 61753-1:2018;
- b) test severities updated according to IEC 61753-1:2018;
- c) simplification of the combination of temperature and exposure time.

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

Draft	Report on voting
86B/4679/FDIS	86B/4711/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 of the IEC 61300 series, published under the general title *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*, can be found on the IEC website.

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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

Part 2-18: Tests – Dry heat – ~~High temperature endurance~~

1 Scope

This part of IEC 61300 details a procedure to determine the suitability of a fibre optic interconnecting device, passive component, splices or closure to withstand the environmental condition of extended high temperature that ~~may~~ occur during operation, storage and/or transport. The test is intended to indicate the performance of such devices when exposed to heat of constant temperature over a given period.

In general terms, this test provides a high temperature to induce potential failures due to softening and expansions.

This procedure does not assess the ability of a device to operate during temperature variations; in this case, IEC 61300-2-22 ~~would be~~ is used.

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 60068-2-2, *Environmental testing – Part 2-2: Tests – Tests B: Dry heat*

IEC 61300-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 1: General and guidance*

IEC 61300-3-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-1: Examinations and measurements – Visual examination*

IEC 61300-3-3, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-3: Examinations and measurements – Active monitoring of changes in attenuation and return loss*

~~IEC 61300-3-4, Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-4: Examinations and measurements – Attenuation~~

IEC 61753-1:2018, *Fibre optic interconnecting devices and passive components – Performance standard – Part 1: General and guidance*

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –
Part 2-18: Tests – Dry heat**

**Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures –
Partie 2-18: Essais – Chaleur sèche**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING
DEVICES AND PASSIVE COMPONENTS –
BASIC TEST AND MEASUREMENT PROCEDURES –****Part 2-18: Tests – Dry heat**

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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

Part 2-18: Tests – Dry heat

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IEC 61300-3-3, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-3: Examinations and measurements – Active monitoring of changes in attenuation and return loss*

IEC 61753-1:2018, *Fibre optic interconnecting devices and passive components – Performance standard – Part 1: General and guidance*

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

DISPOSITIFS D'INTERCONNEXION ET COMPOSANTS PASSIFS FIBRONIQUES – PROCÉDURES FONDAMENTALES D'ESSAIS ET DE MESURES –

Partie 2-18: Essais – Chaleur sèche

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L'IEC 61300-2-18 a été établie par le sous-comité 86B: Dispositifs d'interconnexion et composants passifs à fibres optiques, du comité d'études 86 de l'IEC: Fibres optiques. Il s'agit d'une Norme internationale.

Cette troisième édition annule et remplace la deuxième édition parue en 2005. Cette édition constitue une révision technique.

La présente édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

- a) les termes et définitions ont été mis à jour conformément à l'IEC 61753-1:2018;

- b) les sévérités d'essais ont été mises à jour conformément à l'IEC 61753-1:2018;
- c) Une simplification de la combinaison de la température et de la durée de l'exposition a été effectuée.

Le texte de cette Norme internationale est issu des documents suivants:

Projet	Rapport de vote
86B/4679/FDIS	86B/4711/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous www.iec.ch/members_experts/refdocs. Les principaux types de documents développés par l'IEC sont décrits plus en détail sous www.iec.ch/standardsdev/publications.

Une liste de toutes les parties de la série IEC 61300, publiées sous le titre général: *Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures*, se trouve sur le site web de l'IEC.

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DISPOSITIFS D'INTERCONNEXION ET COMPOSANTS PASSIFS FIBRONIQUES – PROCÉDURES FONDAMENTALES D'ESSAIS ET DE MESURES –

Partie 2-18: Essais – Chaleur sèche

1 Domaine d'application

La présente partie de l'IEC 61300 décrit une procédure destinée à déterminer l'aptitude d'un dispositif d'interconnexion fibronique, d'un composant passif fibronique, des épissures ou d'un boîtier fibronique à supporter des conditions d'environnement à haute température prolongée présentes pendant le fonctionnement, le stockage et/ou le transport. L'essai est destiné à indiquer la performance de tels dispositifs lorsqu'ils sont exposés à une chaleur avec une température constante sur une période donnée.

En termes généraux, cet essai fournit une température haute qui induit des défaillances potentielles du fait du ramollissement et de la dilatation.

Cette procédure ne vise pas à évaluer l'aptitude d'un dispositif à fonctionner pendant les variations de température; dans ce cas, c'est l'IEC 61300-2-22 qui s'applique.

2 Références normatives

Les documents suivants sont cités dans le texte de sorte qu'ils constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 60068-2-2, *Essais d'environnement – Partie 2-2: Essais – Essai B: Chaleur sèche*

IEC 61300-1, *Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures – Partie 1: Généralités et recommandations*

IEC 61300-3-1, *Dispositifs d'interconnexion et composants passifs à fibres optiques – Méthodes fondamentales d'essais et de mesures – Partie 3-1: Examens et mesures – Examen visuel*

IEC 61300-3-3, *Dispositifs d'interconnexion et composants passifs à fibres optiques – Méthodes fondamentales d'essais et de mesures – Partie 3-3: Examens et mesures – Contrôle actif des variations de l'affaiblissement et de l'affaiblissement de réflexion*

IEC 61753-1:2018, *Dispositifs d'interconnexion et composants passifs fibroniques – Norme de performance – Partie 1: Généralités et recommandations*