Fibre optic interconnecting devices and passive components - Reliability - Part 9-4: High power qualification of passive optical components for environmental category C

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 62005-9-4:2018 sisaldab Euroopa standardi EN IEC 62005-9-4:2018 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 62005-9-4:2018 consists of the English text of the European standard EN IEC 62005-9-4:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 02.11.2018.	Date of Availability of the European standard is 02.11.2018.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 33.180.20

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62005-9-4

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English Version

Fibre optic interconnecting devices and passive components - Reliability - Part 9-4: High power qualification of passive optical components for environmental category C (IEC 62005-9-4:2018)

Dispositifs d'interconnexion et composants passifs fibroniques - Fiabilité - Partie 9-4: Qualification de puissance élevée des composants optiques passifs pour la catégorie environnementale C
(IEC 62005-9-4:2018)

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Zuverlässigkeit - Teil 9-4: Qualifizierung von passiven optischen Bauteilen für Umgebungskategorie C für den Einsatz bei hohen optischen Leistungen
(IEC 62005-9-4:2018)

This European Standard was approved by CENELEC on 2018-08-29. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 62005-9-4:2018 E

European foreword

The text of document 86B/4130/FDIS, future edition 1 of IEC 62005-9-4, prepared by SC 86B "Fibre optic interconnecting devices and passive components" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62005-9-4:2018.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-05-29
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2021-08-29

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Endorsement notice

The text of the International Standard IEC 62005-9-4:2018 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60825 (series)	NOTE	Harmonized as EN 60825 (series)
IEC 61291-5-2	NOTE	Harmonized as EN 61291-5-2
IEC 61300-2-48	NOTE	Harmonized as EN 61300-2-48
IEC 61300-3-2	NOTE	Harmonized as EN 61300-3-2
IEC 61300-3-6	NOTE	Harmonized as EN 61300-3-6
IEC 61300-3-7	NOTE	Harmonized as EN 61300-3-7
IEC 61300-3-20	NOTE	Harmonized as EN 61300-3-20
IEC 61753-1	NOTE	Harmonized as EN 61753-1
IEC 62074-1	NOTE	Harmonized as EN 62074-1

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 61300	series	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures	EN 61300	series
IEC 61300-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 1: General and guidance	EN 61300-1	-
IEC 61300-2-14	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-14: Tests - High optical power	EN 61300-2-14	-
IEC 61300-2-19	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-19: Tests - Damp heat (steady state)	EN 61300-2-19	-
IEC 61300-2-22	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-22: Tests - Change of temperature	EN 61300-2-22	-
IEC 61300-3-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-1: Examinations and measurements - Visual examination	EN 61300-3-1	-
IEC 61300-3-35	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-35: Examinations and measurements - Visual inspection of fibre optic connectors and fibre-stub transceivers	EN 61300-3-35	-
IEC 62005-9-1	-	Fibre optic interconnecting devices and passive components - Reliability - Part 9-1: Qualification of passive optical components	EN 62005-9-1	-

CONTENTS

FOREWORD 3
INTRODUCTION 5
1 Scope 6
2 Normative references 6
3 Terms and definitions 6
4 High power qualification tests 7
4.1 Tests 7
4.2 Sample size 9
5 Apparatus 9
5.1 Source (S) 9
5.2 Detector unit (D) 9
5.3 Environmental chamber 9
5.4 Data acquisition system (DAS) 9
5.5 Temporary joints (TJ) 9
5.6 Safety devices 10
6 Test procedure 10
6.1 Preconditioning 10
6.2 Damp heat and post damp heat high optical power exposure 10
6.2.1 Initial optical measurements 10
6.2.2 Damp heat test 10
6.2.3 Optical measurements following damp heat test 10
6.2.4 Post damp heat exposure to high optical power 10
6.2.5 Optical measurements following damp heat and high power exposure 10
6.3 Temperature cycling and post temperature cycling high optical power exposure 10
6.3.1 Initial optical measurements 10
6.3.2 Temperature cycling test 10
6.3.3 Optical measurements following temperature cycling test 11
6.3.4 Post temperature cycling exposure to high optical power 11
6.3.5 Optical measurements following temperature cycling and high power exposure 11
6.4 High power test (endurance) 11
6.4.1 Initial optical measurements 11
6.4.2 Exposure to high optical power (endurance) 11
6.4.3 Optical measurements following exposure to high power 11
7 Failure criteria 11
8 Test report 11
Bibliography 12

Table 1 – High power reliability qualification tests for passive optical components and sample size 8

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – RELIABILITY –

Part 9-4: High power qualification of passive optical components for environmental category C

FOREWORD

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International Standard IEC 62005-9-4 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components of IEC technical committee 86: Fibre optics.

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

FDIS	Report on voting
86B/4130/FDIS	86B/4136/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62005 series, published under the general title *Fibre optic interconnecting devices and passive components – Reliability*, 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 "http://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.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

At present there is no standard for reliability qualification for passive components with respect to high power use. This has led to component manufacturers having to perform different set of tests for various customers leading to higher cost. Additionally such non-standardized testing has led to either over or under testing devices. The aim of this document is to mitigate these issues, by establishing a common framework for reliability assurance at high optical power. While there is no exact number beyond which the optical power is demarcated as high, power exceeding 23 dBm (200 mW) of total input power is considered high.