SLOVENSKI STANDARD
SIST EN 62007-1:2009

01-april-2009

Nadomeġļ a:
SIST EN 62007-1:2002

Polprevodniġke optoelektronske naprave za uporabo v sistemih z optiļ nimi vlakni - 1. del: Specifikacijska predloga za pomembne naznaļ ene vrednosti in karakteristike (IEC 62007-1:2008)

Semiconductor optoelectronic devices for fibre optic system applications - Part 1: Specification template for essential ratings and characteristics (IEC 62007-1:2008)

Optoelektronische Halbleiterbauelemente für Anwendungen in Lichtwellenleitersystemen - Teil 1: Vorlage für Leistungsspezifikationen für wesentliche Grenz- und Kennwerte (IEC 62007-1:2008)

Dispositifs optoélectroniques à semiconducteurs pour application dans les systèmes à fibres optiques - Partie 1: Modèle de spécification relatif aux valeurs et caractéristiques essentielles (CEI 62007-1:2008)

Ta slovenski standard je istoveten z: **EN 62007-1:2009**

ICS:

31.080.01	Polprevodniški elementi (naprave) na splošno	Semiconductor devices in general
31.260	Optoelektronika, laserska oprema	Optoelectronics. Laser equipment
33.180.01	Sistemi z optiļ nimi vlakni na sploġno	Fibre optic systems in general

SIST EN 62007-1:2009 **en,fr**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62007-1

February 2009

ICS 33.180.01; 31.260; 31.080.01

Supersedes EN 62007-1:2000

English version

Semiconductor optoelectronic devices for fibre optic system applications - Part 1: Specification template for essential ratings and characteristics

(IEC 62007-1:2008)

Dispositifs optoélectroniques à semiconducteurs pour application dans les systèmes à fibres optiques - Partie 1: Modèle de spécification relatif aux valeurs et caractéristiques essentielles (CEI 62007-1:2008)

Optoelektronische Halbleiterbauelemente für Anwendungen in Lichtwellenleitersystemen - Teil 1: Vorlage für Leistungsspezifikationen für wesentliche Grenz- und Kennwerte (IEC 62007-1:2008)

This European Standard was approved by CENELEC on 2008-12-01. 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 Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Central Secretariat: avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 62007-1:2009 E

Foreword

The text of document 86C/849/FDIS, future edition 2 of IEC 62007-1, prepared by SC 86C, Fibre optic systems and active devices, of IEC TC 86, Fibre optics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62007-1 on 2008-12-01.

This European Standard supersedes EN 62007-1:2000.

EN 62007-1:2009 includes the following significant technical changes with respect to EN 62007-1:2000.

– the title has been changed to indicate that this is a template;

– the definitions of some symbols and terms in EN 62007-1:2000 are revised in order to harmonize them with those in other SC 86C documents. A dated part in EN 62007-1:2000 is removed and the other dated parts are updated.

NOTE The field of this standard will henceforth be placed under the responsibility of IEC technical committee 86: Fibre optics.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2009-09-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2011-12-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62007-1:2008 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60747-5-1	-[1)]	Discrete semiconductor devices and integrated circuits - Part 5-1: Optoelectronic devices - General	EN 60747-5-1	2001[2)]
IEC 60825	Series	Safety of laser products	EN 60825	Series

[1)] Undated reference.

[2)] Valid edition at date of issue.

IEC 62007-1

Edition 2.0 2008-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

emiconductor optoelectronic devices for fibre optic system applications –
Part 1: Specification template for essential ratings and characteristics

Dispositifs optoélectroniques à semiconducteurs pour application dans les systèmes à fibres optiques –
Partie 1: Modèle de spécification relatif aux valeurs et caractéristiques essentielles

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

W

ICS 33.180.01; 31.260; 31.080.01

ISBN 2-8318-1004-8

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SEMICONDUCTOR OPTOELECTRONIC DEVICES FOR FIBRE OPTIC SYSTEM APPLICATIONS –

Part 1: Specification template for essential ratings and characteristics

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.

3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.

4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.

5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.

6) All users should ensure that they have the latest edition of this publication.

7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.

8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.

9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62007-1 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition published in 1997, and its Amendment 1 (1998). It is a technical revision.

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

1) The title has been changed to indicate that this is a template.
2) The definitions of some symbols and terms in IEC 62007-1 Ed.1 are revised in order to harmonize them with those in other SC 86C documents. A dated part in IEC 62007-1 ed.1 is removed and the other dated parts are updated.

NOTE The field of this standard will henceforth be placed under the responsibility of IEC technical committee 86: Fibre optics.

The text of this standard is based on the following documents:

FDIS	Report on voting
86C/849/FDIS	86C/866/RVD

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

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

A list of all parts of the IEC 62007 series can be found, under the general title *Semiconductor optoelectronic devices for fibre optic system applications*, on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition; or
- amended.

SEMICONDUCTOR OPTOELECTRONIC DEVICES FOR FIBRE OPTIC SYSTEM APPLICATIONS –

Part 1: Specification template for essential ratings and characteristics

1 Scope and object

This part of IEC 62007 is a specification template for essential ratings and characteristics of the following categories of semiconductor optoelectronic devices to be used in the field of fibre optic systems and subsystems:

– semiconductor photoemitters;
– semiconductor photoelectric detectors;
– monolithic or hybrid integrated optoelectronic devices and their modules.

The object of this performance specification template is to provide a frame for the preparation of detail specifications for the essential ratings and characteristics.

Detail specification writers may add specification parameters and/or groups of specification parameters for particular applications. However, detail specification writers may not remove specification parameters specified in this standard.

2 Normative references

The following referenced documents are indispensable for the application 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 60825 (all parts), *Safety of laser products*

IEC 60747-5-1, *Discrete semiconductor devices and integrated circuits – Part 5-1: Optoelectronic devices – General*

3 Terms, definitions and abbreviations

For the purposes of this document, the following terms, definitions and abbreviations apply, as well as terms and definitions concerning *physical concepts*, *types of devices*, *general terms*, and *ratings and characteristics* given in IEC 60747-5-1.

3.1 Terms and definitions

3.1.1
PIN photodiode
photodiode with a large intrinsic region sandwiched between p- and n-doped semiconducting regions used for the detection of optical radiation

NOTE Adapted from IEV 731-06-29, specialized