Optical amplifiers - Part 1: Generic specification

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 61291-1:2018 sisaldab Euroopa standardi EN IEC 61291-1:2018 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 61291-1:2018 consists of the English text of the European standard EN IEC 61291-1:2018.
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 20.04.2018.	Date of Availability of the European standard is 20.04.2018.
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 33.180.30

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 61291-1

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Supersedes EN 61291-1:2012

English Version

Optical amplifiers - Part 1: Generic specification (IEC 61291-1:2018)

Amplificateurs optiques - Partie 1: Spécification générique (IEC 61291-1:2018)

Lichtwellenleiter-Verstärker - Teil 1: Fachgrundspezifikation (IEC 61291-1:2018)

This European Standard was approved by CENELEC on 2018-03-27. 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.

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 CEN-CENELEC Management Centre has the same status as the official versions.

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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 61291-1:2018 E

European foreword

The text of document 86C/1460/CDV, future edition 4 of IEC 61291-1, prepared by IEC/SC 86C "Fibre optic systems and active devices" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61291-1:2018.

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)	2018-12-27
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2021-03-27

This document supersedes EN 61291-1:2012.

This edition includes the following significant technical changes with respect to the previous edition:
a) terms have been added for parameters from IEC 61290-4-3 and IEC 61290-10-5;
b) Clause 4 Classification has been removed, since this system is judged to be unused;
c) the definition of polarization mode dispersion (PMD) has been simplified.

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

Endorsement notice

The text of the International Standard IEC 61291-1:2018 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 60793-2	NOTE	Harmonized as EN 60793-2.
IEC 60825-1	NOTE	Harmonized as EN 60825-1.
IEC 60825-2	NOTE	Harmonized as EN 60825-2.
IEC 60874-1	NOTE	Harmonized as EN 60874-1.
IEC 61000 series	NOTE	Harmonized as EN 61000 series.
IEC 61290-1 series	NOTE	Harmonized as EN 61290-1 series.[1]
IEC 61290-3	NOTE	Harmonized as EN 61290-3.
IEC 61291 series	NOTE	Harmonized as EN 61291 series.

[1] Withdrawn.

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 60050-731	-	International Electrotechnical Vocabulary - Chapter 731: Optical fibre communication	-	-
IEC 61290	series	Optical amplifiers - Test methods	EN 61290	series
IEC 61290-1-1	-	Optical amplifiers - Test methods - Part 1-1: Power and gain parameters - Optical spectrum analyzer method	EN 61290-1-1	-
IEC 61290-1-2	-	Optical amplifiers - Test methods -- Part 1-2: Power and gain parameters - Electrical spectrum analyzer method	EN 61290-1-2	-
IEC 61290-1-3	-	Optical amplifiers - Test methods - Part 1-3: Optical power and gain parameters - Optical power meter method	EN 61290-1-3	-
IEC 61290-3-1	-	Optical amplifiers - Test methods -- Part 3-1: Noise figure parameters - Optical spectrum analyzer method	EN 61290-3-1	-
IEC 61290-3-2	-	Optical amplifiers - Test methods -- Part 3-2: Noise figure parameters - Electrical spectrum analyzer method	EN 61290-3-2	-
IEC 61290-4-1	-	Optical amplifiers - Test methods -- Part 4-1: Gain transient parameters – Two wavelength method	EN 61290-4-1	-
IEC 61290-4-2	-	Optical amplifiers - Test methods -- Part 4-2: Gain transient parameters - Broadband source method	EN 61290-4-2	-
IEC 61290-4-3	-	Optical amplifiers - Test methods - Part 4-3: Power transient parameters - Single channel optical amplifiers in output power control	EN 61290-4-3	-
IEC 61290-5-1	-	Optical amplifiers - Test methods -- Part 5-1: Reflectance parameters - Optical spectrum analyzer method	EN 61290-5-1	-
IEC 61290-5-2	-	Optical amplifiers - Test methods -- Part 5-2: Reflectance parameters - Electrical spectrum analyser method	EN 61290-5-2	-
IEC 61290-5-3	-	Optical fibre amplifiers - Basic specification -- Part 5-3: Test methods for reflectance parameters - Reflectance tolerance using an electrical spectrum analyser	EN 61290-5-3	-
IEC 61290-6-1	-	Optical fibre amplifiers - Basic specification -- Part 6-1: Test methods for pump leakage parameters - Optical demultiplexer	EN 61290-6-1	-

IEC 61290-7-1	-	Optical amplifiers - Test methods -- Part 7-1: Out-of-band insertion losses - Filtered optical power meter method	EN 61290-7-1	-
IEC 61290-10-1	-	Optical amplifiers - Test methods -- Part 10-1: Multichannel parameters - Pulse method using an optical switch and optical spectrum analyser	EN 61290-10-1	-
IEC 61290-10-2	-	Optical amplifiers - Test methods -- Part 10-2: Multichannel parameters - Pulse method using a gated optical spectrum analyzer	EN 61290-10-2	-
IEC 61290-10-3	-	Optical amplifiers - Test methods -- Part 10-3: Multichannel parameters - Probe methods	EN 61290-10-3	-
IEC 61290-10-4	-	Optical amplifiers - Test methods -- Part 10-4: Multichannel parameters - Interpolated source subtraction method using an optical spectrum analyzer	EN 61290-10-4	-
IEC 61290-10-5	-	Optical amplifiers - Test methods -- Part 10-5: Multichannel parameters - Distributed Raman amplifier gain and noise figure	EN 61290-10-5	-
IEC 61290-11-1	-	Optical amplifier - Test methods -- Part 11-1: Polarization mode dispersion parameter - Jones matrix eigenanalysis (JME)	EN 61290-11-1	-
IEC 61290-11-2	-	Optical amplifiers - Test methods -- Part 11-2: Polarization mode dispersion parameter - Poincaré sphere analysis method	EN 61290-11-2	-
IEC 61291-5-2	-	Optical amplifiers - Part 5-2: Qualification specifications - Reliability qualification for optical fibre amplifiers	EN 61291-5-2	-
IEC/TR 61931	-	Fibre optic - Terminology	-	-

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