



SLOVENSKI STANDARD

SIST EN 62343:2013

01-oktober-2013

Dinamični moduli in naprave - Splošno in navodilo

Dynamic modules and devices - General and guidance

Dynamische Module und Bauteile - Allgemeines und Leitfaden

Dispositifs et modules dynamiques - Généralités et guide

Ta slovenski standard je istoveten z: EN 62343:2013

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ICS:

33.180.01	Sistemi z optičnimi vlakni na splošno	Fibre optic systems in general
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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62343

August 2013

ICS 33.180.01; 33.180.99

English version

**Dynamic modules -
General and guidance
(IEC 62343:2013)**

Modules dynamiques -
Généralités et lignes directrices
(CEI 62343:2013)

Dynamische Module -
Allgemeines und Leitfaden
(IEC 62343:2013)

STANDARD PREVIEW
This European Standard was approved by CENELEC on 2013-07-10. 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.
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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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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.

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

CENELEC

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 86C/1055/CDV, future edition 1 of IEC 62343, 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 approved by CENELEC as EN 62343:2013.

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) 2014-04-10
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-07-10

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The text of the International Standard IEC 62343:2013 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 61290	NOTE	Harmonised as EN 61290 (series).
IEC 61291	NOTE	Harmonised as EN 61291 (series).
IEC 61300	NOTE	Harmonised as EN 61300 (series).
IEC 61753	NOTE	Harmonised as EN 61753 (series).
IEC 62342-2	NOTE	Harmonised as EN 62342-2.
IEC 62343-3-1:2010	NOTE	Harmonised as EN 62343-3-1:2010 (not modified).
IEC 62343-5	NOTE	Harmonised as EN 62343-5 (series).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-731	-	International Electrotechnical Vocabulary (IEV) - Chapter 731: Optical fibre communication	-	-
IEC/TR 61931	-	Fibre optic - Terminology	-	-
IEC 62343-1	series	Dynamic modules - Performance standards	EN 62343-1	series
IEC 62343-3	series	Dynamic modules - Performance specification templates	EN 62343-3	series
IEC Guide 107	-	Electromagnetic compatibility - Guide to the drafting of electromagnetic compatibility publications	-	-

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IEC 62343

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INTERNATIONAL STANDARD

Dynamic modules – General and guidance

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**DYNAMIC MODULES –
GENERAL AND GUIDANCE**
FOREWORD

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International Standard IEC 62343 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

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

CDV	Report on voting
86C/1055/CDV	86C/1088/RVC

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 the parts in the IEC 62343 series, published under the general title *Dynamic modules*, can be found on the IEC website.

The structure of the IEC 62343 series, under the general title *Dynamic modules*, is as follows:

- 62343-1 series Part 1: Performance standards
- 62343-2 Part 2: Reliability qualification
- 62343-3 Performance specification templates
- 62343-4 series Software and hardware interface standards
- 62343-5 series Test methods
- 62343-6 series Technical reports

The committee has decided that the contents of this publication will remain unchanged until the stability 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.

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

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INTRODUCTION

This International Standard applies to dynamic devices as defined in IEC/TS 62538. It contains general guidance for the IEC 62343 series related to dynamic devices, and definitions which apply to dynamic devices. The dynamic module, or device, has two distinguishing characteristics: dynamic and module.

“Dynamic” highlights the functions of the products to include “tuning, varying, switching, configuring, and other continuous optimization,” often accomplished by electronics, firmware, software or their combinations. The dynamic device usually has a certain level of intelligence to monitor or measure the situation and make decisions for necessary (optimization) actions. The behaviour of dynamic modules may be characterized by transient characteristics as the dynamic module undergoes tuning, switching, configuring and other continuous optimization. Characterization of transient characteristics will be considered in individual dynamic module standards.

“Module” defines that the products covered by the standard are the integration of active and passive components (either or both), through interconnecting materials or devices. The controlling electronics can be inside or outside the optical package (that contains all or most of the optical components and interconnection). The product can look like a small printed wiring board (PWB or child-board with mounted optical module) or a small box (housing) with optical components and electronics enclosed. In the former case, it is more like an assembly (generally not packaged in a box or housing) than a module (generally packaged in a box or housing).

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For historical reasons and convenience, a dynamic module or device is referred to as a dynamic module in the IEC 62343-X series.

The number of dynamic modules and devices is rapidly growing as optical communications networks evolve. The following list provides some examples of the products covered by the IEC 62343-X series. It should be noted that the list is not exhaustive and the products to be covered are not limited by the listed examples:

- channel gain equalizer;
- dynamic channel equalizer;
- dynamic gain tilt equalizer;
- dynamic slope equalizer;
- tuneable chromatic dispersion compensator;
- polarization mode dispersion compensator;
- reconfigurable optical add-drop multiplexer;
- switch with monitoring and controls;
- variable optical attenuator with monitoring and controls.

The IEC 62343 series will cover performance templates, performance standards, reliability qualification requirements, hardware and software interfaces, and related testing methods.

A complete set of standards related to a dynamic module or device should include the following:

- optical performance standards;
- reliability qualification standards;
- optical performance specification templates;
- hardware and software interface standards;
- test methods;