SLOVENSKI STANDARD
SIST EN ISO 21254-3:2011

01-oktober-2011

Nadomešča:
SIST EN ISO 11254-3:2006

Laserji in laserska oprema - Določanje praga poškodbe na optični površini, povzročene z laserjem - 3. del: Zagotavljanje zmožnosti ravnanja z lasersko energijo (ISO 21254-3:2011)

Lasers and laser-related equipment - Test methods for laser-induced damage threshold - Part 3: Assurance of laser power (energy) handling capabilities (ISO 21254-3:2011)

Laser und Laseranlagen - Prüfverfahren für die laserinduzierte Zerstörschwelle - Teil 3: Zertifizierung der Belastbarkeit hinsichtlich Laserleistung (-energie) (ISO 21254-3:2011)

Lasers et équipements associés aux lasers - Méthodes d'essai du seuil d'endommagement provoqué par laser - Partie 3: Possibilités de traitement par puissance (énergie) laser (ISO 21254-3:2011)

Ta slovenski standard je istoveten z: **EN ISO 21254-3:2011**

ICS:

31.260	Optoelektronika, laserska oprema	Optoelectronics. Laser equipment

SIST EN ISO 21254-3:2011 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 21254-3

July 2011

ICS 31.260

Supersedes EN ISO 11254-3:2006

English Version

Lasers and laser-related equipment - Test methods for laser-induced damage threshold - Part 3: Assurance of laser power (energy) handling capabilities (ISO 21254-3:2011)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN ISO 21254-3:2011: E

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Foreword

This document (EN ISO 21254-3:2011) has been prepared by Technical Committee ISO/TC 172 "Optics and photonics" in collaboration with Technical Committee CEN/TC 123 “Lasers and photonics” the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2012, and conflicting national standards shall be withdrawn at the latest by January 2012.

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

This document supersedes EN ISO 11254-3:2006.

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Endorsement notice

The text of ISO 21254-3:2011 has been approved by CEN as a EN ISO 21254-3:2011 without any modification.

INTERNATIONAL STANDARD

ISO 21254-3

First edition
2011-07-15

Lasers and laser-related equipment — Test methods for laser-induced damage threshold —

Part 3: Assurance of laser power (energy) handling capabilities

Lasers et équipements associés aux lasers — Méthodes d'essai du seuil d'endommagement provoqué par laser —

Partie 3: Possibilités de traitement par puissance (énergie) laser

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 21254-3 was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 9, *Electro-optical systems*.

This first edition of ISO 21254-3:2011 cancels and replaces ISO 11254-3:2006, which has been technically revised.

ISO 21254 consists of the following parts, under the general title *Lasers and laser-related equipment — Test methods for laser-induced damage threshold*:

— *Part 1: Definitions and general principles*

— *Part 2: Threshold determination*

— *Part 3: Assurance of laser power (energy) handling capabilities*

— *Part 4: Inspection, detection and measurement* [Technical Report]

Introduction

This part of ISO 21254 describes two methods of verifying the power density (energy density) handling capability of optical components, both coated and uncoated.

The methods will give consistent measurement results and can therefore be used for acceptance testing or to produce results which can be compared between test laboratories.

The methods are applicable to all combinations of laser wavelengths and pulse lengths. Comparison of laser damage threshold data can, however, be misleading unless the measurements have been carried out at identical wavelengths and pulse lengths.