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Elektrostatiska urladdningar (ESD) – Del 5-3: Skydd av elektronik – Klassning av egenskaper och fordringar för förpackningar för ESD-känsliga komponenter

Electrostatics –

*Part 5-3: Protection of electronic devices from electrostatic phenomena –
Properties and requirements classification for packaging
intended for electrostatic discharge sensitive devices*

Som svensk standard gäller europastandarden EN 61340-5-3:2015. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61340-5-3:2015.

Nationellt förord

Europastandarden EN 61340-5-3:2015

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 61340-5-3, Second edition, 2015 - Electrostatics - Part 5-3: Protection of electronic devices from electrostatic phenomena - Properties and requirements classification for packaging intended for electrostatic discharge sensitive devices**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 61340-5-3, utgåva 1, 2010, gäller ej fr o m 2018-08-20.

ICS 17.220.99; 29.020.00

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English Version

Electrostatics - Part 5-3: Protection of electronic devices from
electrostatic phenomena - Properties and requirements
classification for packaging intended for electrostatic discharge
sensitive devices
(IEC 61340-5-3:2015)

Électrostatique - Partie 5-3: Protection des dispositifs
électroniques contre les phénomènes électrostatiques -
Classification des propriétés et des exigences relatives à
l'emballage destiné aux dispositifs sensibles aux décharges
électrostatiques
(IEC 61340-5-3:2015)

Elektrostatik - Teil 5-3: Schutz von elektronischen
Bauelementen gegen elektrostatische Phänomene -
Eigenschaften und Anforderungen für die Klassifizierung
von Verpackungen, welche für Bauelemente verwendet
werden, die gegen elektrostatische Entladungen
empfindlich sind
(IEC 61340-5-3:2015)

This European Standard was approved by CENELEC on 2015-08-20. 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.

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.



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

European foreword

The text of document 101/428/CDV, future edition 2 of IEC 61340-5-3, prepared by IEC/TC 101 "Electrostatics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61340-5-3:2015.

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) 2016-05-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-08-20

This document supersedes EN 61340-5-3:2010.

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

Endorsement notice

The text of the International Standard IEC 61340-5-3:2015 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 61340-5-1	NOTE	Harmonized as EN 61340-5-1.
IEC 60749-26	NOTE	Harmonized as EN 60749-26.

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 1 When 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60417	-	Graphical symbols for use on equipment	-	-
IEC 61340-2-3	-	Electrostatics - Part 2-3: Methods of test for determining the resistance and resistivity of solid planar materials used to avoid electrostatic charge accumulation	EN 61340-2-3	-
IEC 61340-4-8	-	Electrostatics - Part 4-8: Standard test methods for specific applications - Electrostatic discharge shielding - Bags	EN 61340-4-8	-
IEC 61340-4-10	-	Electrostatics - Part 4-10: Standard test methods for specific applications - Two-point resistance measurement	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTROSTATICS –

Part 5-3: Protection of electronic devices from electrostatic phenomena – Properties and requirements classification for packaging intended for electrostatic discharge sensitive devices

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.
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International Standard IEC 61340-5-3 has been prepared by IEC technical committee 101: Electrostatics.

This second edition cancels and replaces the first edition published in 2010. This edition constitutes a technical revision.

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

- a) removal of all references to ANSI/ESD STM11.13, replaced by normative reference IEC 61340-4-10;
- b) additional notes added to Table 1;
- c) addition of a new Table 3 related to the "ESD classification symbol" and the "primary function code".

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

CDV	Report on voting
101/428/CDV	101/457/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 parts in the IEC 61340 series, under the general title *Electrostatics*, can be found on the IEC website

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.

INTRODUCTION

Packaging is necessary to protect electrostatic discharge sensitive devices (ESDS) from physical and environmental damage during manufacture, transportation and storage.

Additionally, packaging for ESDS should also prevent damage from static electricity.

ELECTROSTATICS –

Part 5-3: Protection of electronic devices from electrostatic phenomena – Properties and requirements classification for packaging intended for electrostatic discharge sensitive devices

1 Scope

This part of IEC 61340 defines the ESD protective packaging properties needed to protect electrostatic discharge sensitive devices (ESDS) through all phases of production, rework/maintenance, transport and storage. Test methods are referenced to evaluate packaging and packaging materials for these product and material properties. Performance limits are provided.

This standard does not address protection from electromagnetic interference (EMI), electromagnetic pulsing (EMP) or protection of volatile materials.

2 Normative references

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.

IEC 61340-2-3, *Electrostatics – Part 2-3: Methods of test for determining the resistance and resistivity of solid planar materials used to avoid electrostatic charge accumulation*

IEC 61340-4-8, *Electrostatics – Part 4-8: Standard test methods for specific applications – Electrostatic discharge shielding – Bags*

IEC 61340-4-10, *Electrostatics – Part 4-10: Standard test methods for specific applications – Two-point resistance measurement¹*

IEC 60417, *Graphical symbols for use on equipment* (available at <http://www.graphical-symbols.info/equipment>)

¹ At the time of writing, it is proposed withdrawing IEC 61340-4-10: 2012 and incorporating the test method into the next edition of IEC 61340-2-3.