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I.S. EN 61760-3:2010

Surface mounting technology -- Part 3: Standard method for the specification of components for Through Hole Reflow (THR) soldering (IEC 61760-3:2010 (EQV))

I.S. EN 61760-3:2010

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EN 61760-3

April 2010

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English version

**Surface mounting technology -
Part 3: Standard method for the specification of components
for Through Hole Reflow (THR) soldering
(IEC 61760-3:2010)**

Technique du montage en surface -
Partie 3: Méthode normalisée relative
à la spécification des composants pour
le brasage par refusion à trous traversants
(THR, Through Hole Reflow)
(CEI 61760-3:2010)

Oberflächenmontagetechnik -
Teil 3: Genormtes Verfahren
zur Spezifizierung
von Durchsteckmontage-Bauelementen
für das Aufschmelzlöten (THR)
(IEC 61760-3:2010)

This European Standard was approved by CENELEC on 2010-04-01. 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.

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CENELEC

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

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Foreword

The text of document 91/856/CDV, future edition 1 of IEC 61760-3, prepared by IEC TC 91, Electronics assembly technology, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61760-3 on 2010-04-01.

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

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) | 2011-01-01 |
| – latest date by which the national standards conflicting
with the EN have to be withdrawn | (dow) | 2013-04-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61760-3:2010 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60062	-	Marking codes for resistors and capacitors	EN 60062	-
IEC 60068	Series	Environmental testing	EN 60068	Series
IEC 60068-2-20	-	Environmental testing - Part 2-20: Tests - Test T: Test methods for solderability and resistance to soldering heat of devices with leads	EN 60068-2-20	-
IEC 60068-2-21	-	Environmental testing - Part 2-21: Tests - Test U: Robustness of terminations and integral mounting devices	EN 60068-2-21	-
IEC 60068-2-45 + A1	1980 1993	Environmental testing - Part 2: Tests - Test Xa and guidance: Immersion in cleaning solvents	EN 60068-2-45 + A1	1992 1993
IEC 60068-2-58	-	Environmental testing - Part 2-58: Tests - Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)	EN 60068-2-58	-
IEC 60068-2-77	-	Environmental testing - Part 2-77: Tests - Test 77: Body strength and impact shock	EN 60068-2-77	-
IEC 60068-2-82	-	Environmental testing - Part 2-82: Tests - Test XW1: Whisker test methods for electronic and electric components	EN 60068-2-82	-
IEC 60194	-	Printed board design, manufacture and assembly - Terms and definitions	EN 60194	-
IEC 60286	Series	Packaging of components for automatic handling	EN 60286	Series
IEC 60286-3	-	Packaging of components for automatic handling - Part 3: Packaging of surface mount components on continuous tapes	EN 60286-3	-
IEC 60286-4	-	Packaging of components for automatic handling - Part 4: Stick magazines for electronic components encapsulated in packages of form E and G	EN 60286-4	-

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60286-5	-	Packaging of components for automatic handling - Part 5: Matrix trays	EN 60286-5	-
IEC 60749-20	-	Semiconductor devices - Mechanical and climatic test methods - Part 20: Resistance of plastic encapsulated SMDs to the combined effect of moisture and soldering heat	EN 60749-20	-
IEC 61760-2	-	Surface mounting technology - Part 2: Transportation and storage conditions of surface mounting devices (SMD) - Application guide	EN 61760-2	-
IEC 62090	-	Product package labels for electronic components using bar code and two-dimensional symbologies	EN 62090	-
ISO 8601	-	Data elements and interchange formats - Information interchange - Representation of dates and times	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SURFACE MOUNTING TECHNOLOGY –

**Part 3: Standard method for the specification of
components for through hole reflow (THR) soldering**

FOREWORD

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International Standard IEC 61760-3 has been prepared by IEC technical committee 91: Electronics assembly technology.

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

CDV	Report on voting
91/856/CDV	91/898/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 of the IEC 61760 series, under the general title *Surface mounting technology* can be found on the IEC website.

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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.

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SURFACE MOUNTING TECHNOLOGY –

Part 3: Standard method for the specification of components for through hole reflow (THR) soldering

1 Scope and object

This part of IEC 61760 gives a reference set of requirements, process conditions and related test conditions to be used when compiling specifications of electronic components that are intended for usage in through hole reflow soldering technology.

The object of this standard is to ensure that components with leads intended for through hole reflow and surface mounting components can be subjected to the same placement and mounting processes. Hereto, this standard defines test and requirements that need to be part of any component generic, sectional or detail specification, when through hole reflow soldering is intended. Further this standard provides component users and manufacturers with a reference set of typical process conditions used in through hole reflow soldering technology.

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 60062, *Marking codes for resistors and capacitors*

IEC 60068 (all parts), *Environmental testing*

IEC 60068-2-20, *Environmental testing – Part 2-20: Tests – Test T: Test methods for solderability and resistance to soldering heat of devices with leads*

IEC 60068-2-21, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 60068-2-45:1980, *Basic environmental testing procedures – Part 2-45: Tests – Test XA and guidance: Immersion in cleaning solvents*
Amendment 1:1993

IEC 60068-2-58, *Environmental testing – Part 2-58: Tests – Test Td: Test methods for solderability resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)*

IEC 60068-2-77, *Environmental testing – Part 2-77: Tests – Body strength and impact shock*

IEC 60068-2-82, *Environmental testing – Part 2-82: Tests – Test XW₁: Whisker test methods for electronic and electric components*

IEC 60194, *Printed board design, manufacture and assembly – Terms and definitions*

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