

Electrostatics —

Part 3-1: Methods for simulation of electrostatic effects — Human body model (HBM) electrostatic discharge test waveforms

The European Standard EN 61340-3-1:2007 has the status of a
British Standard

ICS 17.220.99; 29.020

National foreword

This British Standard is the UK implementation of EN 61340-3-1:2007. It is identical to IEC 61340-3-1:2006. It supersedes BS EN 61340-3-1:2002 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/101, Electrostatics.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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**Electrostatics -
Part 3-1: Methods for simulation of electrostatic effects -
Human body model (HBM) electrostatic discharge test waveforms
(IEC 61340-3-1:2006)**

Électrostatique -
Partie 3-1: Méthodes pour la simulation
des effets électrostatiques -
Formes d'onde d'essai
des décharges électrostatiques
pour le modèle du corps humain (HBM)
(CEI 61340-3-1:2006)

Elektrostatik -
Teil 3-1: Verfahren zur Simulation
elektrostatischer Effekte -
Prüfwellenformen
der elektrostatischen Entladung
für das Human Body Model (HBM)
(IEC 61340-3-1:2006)

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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 101/236/FDIS, future edition 2 of IEC 61340-3-1, prepared by IEC TC 101, Electrostatics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61340-3-1 on 2007-07-01.

This European Standard supersedes EN 61340-3-1:2002.

The major change of this document is that it no longer contains the application to semiconductor devices.

The following dates were fixed:

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|--|-------|------------|
| – latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2008-04-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2010-07-01 |

Endorsement notice

The text of the International Standard IEC 61340-3-1:2006 was approved by CENELEC as a European Standard without any modification.

ELECTROSTATICS –

Part 3-1: Methods for simulation of electrostatic effects – Human body model (HBM) electrostatic discharge test waveforms

1 Scope

This part of IEC 61340 describes the discharge current waveforms used to simulate human body model (HBM) electrostatic discharges (ESD) and the basic requirements for equipment used to develop and verify these waveforms.

This standard covers HBM ESD waveforms for use in general test methods and for application to materials or objects, electronic components and other items for ESD withstand-test or performance-evaluation purposes. The specific application of these HBM ESD waveforms to non-powered semiconductor devices is covered in IEC 60749-26.

The waveforms defined in this standard are not intended for use in the testing of powered electronic systems for electromagnetic compatibility (EMC), which is covered in IEC 61000-4-2.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1

unit under test

UUT

material, object, item or product to be subjected to the HBM ESD test

2.2

UUT failure

condition in which a UUT does not meet one or more specified parameters as a result of the ESD test

2.3

ESD withstand voltage

maximum applied ESD voltage level that does not cause failure parameter limits to be exceeded, provided that all UUTs stressed at lower levels have also passed