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EUROPEAN STANDARD NORME EUROPÉENNE

EN 50116

EUROPÄISCHE NORM

November 2006

ICS 35.020; 35.260.10

Supersedes EN 50116:1996

English version

Information technology equipement -Routine electrical safety testing in production

Matériel de traitement de l'information -Essais individuels de série, en production, pour la vérification de la sécurité électrique Einrichtungen der Informationstechnik -Stückprüfungen für die Fertigung in Bezug auf elektrische Sicherheit

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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

This European Standard was prepared by the Technical Committee CENELEC TC 108, Safety of electronic equipment within the fields of audio/video, information technology and communication technology.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50116 on 2006-10-01.

This European Standard supersedes EN 50116:1996. A list of the significant changes is given in Annex A.

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)	2007-10-01
_	latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2009-10-01

This European Standard applies to equipment that complies with EN 60950 or EN 60950-1. Most of the tests specified in those standards are TYPE TESTS. For ROUTINE TESTS, to be carried out during or after manufacture, TYPE TESTS may not be suitable. Nevertheless it is recognized that some tests are necessary in order to guarantee an acceptable level of safety.

This European Standard defines ROUTINE TESTS to measure the resistance of the earthing path and to check the insulation between the PRIMARY CIRCUIT and accessible conductive parts. In addition, this European Standard defines the documentation to be maintained by the manufacturer in respect of these tests.

This standard is complementary to the product safety standards (EN 60950 or EN 60950-1) and is to be considered only as a tool for voluntary application by manufacturers.

This European Standard can be used in association with Permanent Document CIG 021, *Factory inspection procedures - Harmonised requirements*, of the European Electrical Products Certification Association.

Permanent Document CIG 021 can be obtained from signatory bodies (certification bodies).

In this European Standard, the following print types are used:

- normative text: roman type;
- test specifications: italic type;
- terms which are defined in EN 60950 or EN 60950-1: SMALL CAPITALS.

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1 Scope

This European Standard defines routine test procedures for use during or after manufacturing of complete equipments, sub-assemblies or components, certified or declared as complying with EN 60950 or EN 60950-1 and powered by an a.c. or d.c. mains supply.

The application of the tests detailed in this European Standard is design dependent and needs to be defined by the manufacturer.

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.

Publication	Year	Title
EN 60950	2000	Safety of information technology equipment (IEC 60950:1999 + corrigendum Jan. 2000, mod.)
EN 60950-1	2001	Information technology equipment - Safety Part 1: General requirements (IEC 60950-1:2001, mod.)
EN 60950-1	2006	Information technology equipment - Safety Part 1: General requirements (IEC 60950-1:2005, mod.)

3 Definitions

For the purposes of this document, the definitions of EN 60950 or EN 60950-1 apply.

In addition, for purpose of this standard, the following definition applies:

3.1

routine electrical safety test

a test to which each individual device is subjected during or at the end of manufacture, to detect manufacturing failures and unacceptable tolerances in manufacturing and materials

4 Conformance

In order to conform to this European Standard, an equipment shall pass the tests of Clause 5 where applicable and the results of these tests shall be recorded according to Clause 6.

5 Routine tests

5.1 Resistance of protective earthing paths

ROUTINE TESTS shall be carried out by passing a test current through each PROTECTIVE BONDING CONDUCTOR that connects an accessible part to the main protective earthing terminal or earthing contact.

The test current is 150 % of the rating of the overcurrent device protecting the PROTECTIVE BONDING CONDUCTOR, but not more than 25 A (a.c. or d.c.) and is applied for any duration between 1 s and 4 s.

The resistance, calculated from the voltage drop, shall not exceed 0,1 Ω .



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