



SLOVENSKI STANDARD

SIST EN 61124:2012

01-oktober-2012

Preskušanje zanesljivosti - Ustreznostni preskusi za konstantno pogostost odpovedi in konstantno intenzivnost odpovedi

Reliability testing - Compliance tests for constant failure rate and constant failure intensity

Prüfungen der Funktionsfähigkeit - Prüfpläne für konstante Ausfallrate und konstante Ausfalldichte

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Essais de fiabilité - Plans d'essais de conformité d'un taux de défaillance constant et d'une intensité de défaillance constante

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Ta slovenski standard je istoveten z: EN 61124:2012

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19.020	Preskuševalni pogoji in postopki na splošno	Test conditions and procedures in general
21.020	Značilnosti in načrtovanje strojev, aparatov, opreme	Characteristics and design of machines, apparatus, equipment

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61124

August 2012

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Supersedes EN 61124:2006

English version

**Reliability testing -
Compliance tests for constant failure rate
and constant failure intensity
(IEC 61124:2012)**

Essais de fiabilité -
Plan d'essais de conformité d'un taux
de défaillance constant et d'une intensité
de défaillance constante
(CEI 61124:2012)

Prüfungen der Funktionsfähigkeit -
Prüfpläne für konstante Ausfallrate
und konstante Ausfalldichte
(IEC 61124:2012)

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 56/1461/FDIS, future edition 3 of IEC 61124, prepared by IEC/TC 56 "Dependability" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61124:2012.

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) 2013-03-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-06-27

This document supersedes EN 61124:2006.

EN 61124:2012 includes the following significant technical changes with respect to EN 61124:2006:

- a number of new test plans have been added based on the Russian standard GOST R 27.402, and it is intended to align the new edition of MIL-HDBK-781 with this edition. Algorithms for optimizing test plans using a spreadsheet program are given and a number of optimized test plans are listed. Furthermore, emphasis is laid on the fact that the test should be repeated following design changes;
- discrepancies in test plans A, B as well as Annexes A and B that originated in IEC 60605-7, now withdrawn, have been corrected so these test plans differ from those given in previous edition of EN 61124. As requested by the National committees, mathematical background material and spreadsheet program information has been moved to informative annexes. In addition, the symbol lists have been divided, so that some annexes have separate lists of symbols;
- guidance on how to choose test plans has been added as well as guidance on how to use spreadsheet programs to create them. Test plans A.1 to A.9 and B.1 to B.13 have been corrected;
- Subclauses 8.1, 8.2, 8.3, Clause 9, Annex C, Clauses G.2, I.2, I.3 and Annex J are unchanged, except for updated terminology and references;
- corrections to the second edition proposed by National Committees have been implemented.

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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 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 60050-191	-	International Electrotechnical Vocabulary (IEV) - Chapter 191: Dependability and quality of service	-	-
IEC 60300-3-5	2001	Dependability management - Part 3-5: Application guide - Reliability test conditions and statistical test principles	-	-
IEC 60605-2	-	Equipment reliability testing - Part 2: Design of test cycles	-	-
IEC 60605-4	2001	Equipment reliability testing - Part 4: Statistical procedures for exponential distribution - Point estimates, confidence intervals, prediction intervals and tolerance intervals	-	-
IEC 60605-6	-	Equipment reliability testing - Part 6: Tests for the validity and estimation of the constant failure rate and constant failure intensity	-	-
IEC 61123	1991	Reliability testing - Compliance test plans for - success ratio	-	-

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IEC 61124

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INTERNATIONAL STANDARD

NORME INTERNATIONALE



Reliability testing – Compliance tests for constant failure rate and constant failure intensity

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Essais de fiabilité – Plan d’essais de conformité d’un taux de défaillance constant et d’une intensité de défaillance constante

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**RELIABILITY TESTING –
COMPLIANCE TESTS FOR CONSTANT FAILURE RATE
AND CONSTANT FAILURE INTENSITY**
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 61124 has been prepared by IEC technical committee 56: Dependability.

This third edition of IEC 61124 cancels and replaces the second edition, published in 2006, and constitutes a technical revision.

The main changes with respect to the previous edition are as follows:

- A number of new test plans have been added based on the Russian standard GOST R 27.402 [1]¹, and it is intended to align the new edition of MIL-HDBK-781 [2] with this edition. Algorithms for optimizing test plans using a spreadsheet program are given and a number of optimized test plans are listed. Furthermore, emphasis is laid on the fact that the test should be repeated following design changes.

¹ Figures in square brackets refer to the bibliography.

- Discrepancies in test plans A, B as well as Annexes A and B that originated in IEC 60605-7 [3], now withdrawn, have been corrected so these test plans differ from those given in previous editions of IEC 61124. As requested by the National Committees, mathematical background material and spreadsheet program information has been moved to informative annexes. In addition, the symbol lists have been divided, so that some annexes have separate lists of symbols.
- Guidance on how to choose test plans has been added as well as guidance on how to use spreadsheet programs to create them. Test plans A.1 to A.9 and B.1 to B.13 have been corrected.
- Subclauses 8.1, 8.2, 8.3, Clause 9, Annex C, Clauses G.2, I.2, I.3 and Annex J are unchanged, except for updated terminology and references.
- Corrections to the second edition proposed by National Committees have been implemented.

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

FDIS	Report on voting
56/1461/FDIS	56/1468/RVD

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.

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