



SLOVENSKI STANDARD

SIST EN 62040-1:2009

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SIST EN 62040-1-1:2003
SIST EN 62040-1-2:2003

Sistemi z neprekinjanim napajanjem (UPS) - 1. del: Splošne in varnostne zahteve za UPS (IEC 62040-1:2008 (EQV) + popravek Aug. 2008)

Uninterruptible Power Systems (UPS) - Part 1: General and safety requirements for UPS (IEC 62040-1:2008 (EQV) + corrigendum Aug. 2008)

Unterbrechungsfreie Stromversorgungssysteme (USV) - Teil 1: Allgemeine Anforderungen und Sicherheitsanforderungen (IEC 62040-1-1:2008 (EQV) + Corrigendum Aug. 2008)

Alimentations sans interruption (ASI) - Part 1 : Exigences générales et règles de sécurité pour les ASI (CEI 62040-1-1:2008 (EQV) + corrigendum Aug.2008)

Ta slovenski standard je istoveten z: EN 62040-1:2008

ICS:

29.200	W{ ^!} ä äÜ!^c[!] ä ä Ë Ùcä ä ä ä [Á ^ d ä] } ä ä ä ä	Rectifiers. Convertors. Stabilized power supply
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SIST EN 62040-1:2009

en,fr

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62040-1

November 2008

ICS 29.200

Supersedes EN 62040-1-1:2003 and EN 62040-1-2:2003

English version

**Uninterruptible power systems (UPS) -
Part 1: General and safety requirements for UPS
(IEC 62040-1:2008 + corrigendum August 2008)**

Alimentations sans interruption (ASI) -
Partie 1: Exigences générales
et règles de sécurité pour les ASI
(CEI 62040-1:2008 +
corrigendum août 2008)

Unterbrechungsfreie
Stromversorgungssysteme (USV) -
Teil 1: Allgemeine Anforderungen
und Sicherheitsanforderungen
(IEC 62040-1:2008 +
Corrigendum August 2008)

This European Standard was approved by CENELEC on 2008-09-01. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 22H/104/FDIS, future edition 1 of IEC 62040-1, prepared by SC 22H, Uninterruptible power systems (UPS), of IEC TC 22, Power electronic systems and equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62040-1 on 2008-09-01.

This European Standard supersedes EN 62040-1-1:2003 + corrigendum August 2004 and EN 62040-1-2:2003 + corrigendum August 2004.

EN 62040-1:2008 merges all requirements of EN 62040-1-1:2003 and EN 62040-1-2:2003, with the addition of the following:

- update of normative references including EN 60950-1 as Reference Document (RD);
- harmonization and alignment with current world recognized best practices;
- enhancement of backfeed protection, definition of ground-fault, revision of temperature rise tables and of hydrogen concentration in battery compartments.

This standard is to be used in conjunction with EN 60950-1:2006 which is referred to in this standard as "RD".

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) | 2009-06-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2011-09-01 |

In this standard, the following print types are used:

- requirements proper and normative annexes: in roman type;
- compliance statements and test specifications: *in italic type*;
- notes and other informative matter: in smaller roman type;
- normative conditions within tables: in smaller roman type;
- terms that are defined in Clause 3: **bold**.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62040-1:2008 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 60439-1	NOTE	Harmonized as EN 60439-1:1999 (not modified).
IEC 60925	NOTE	Harmonized as EN 60925:1991 (not modified).
IEC 60990	NOTE	Harmonized as EN 60990:1999 (not modified).
IEC 61347	NOTE	Harmonized in EN 61347 series (partially modified).

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 60364-4-42	- ¹⁾	Electrical installations of buildings - Part 4-42: Protection for safety - Protection against thermal effects	-	-
IEC 60417	Data-base	Graphical symbols for use on equipment	-	-
IEC 60529	- ¹⁾	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 ²⁾ 1993
IEC 60664	Series	Insulation coordination for equipment within low-voltage systems	EN 60664	Series
IEC/TR 60755	- ¹⁾	General requirements for residual current operated protective devices	-	-
IEC 60950-1 (mod)	2005	Information technology equipment - Safety - Part 1: General requirements	EN 60950-1	2006
IEC 61000-2-2	- ¹⁾	Electromagnetic compatibility (EMC) - Part 2-2: Environment - Compatibility levels for low-frequency conducted disturbances and signalling in public low-voltage power supply systems	EN 61000-2-2	2002 ²⁾
IEC 61008-1 (mod)	- ¹⁾	Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCB's) - Part 1: General rules	EN 61008-1 + A11	2004 ²⁾ 2007
IEC 61009-1 (mod)	- ¹⁾	Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBO's) - Part 1: General rules	EN 61009-1 + corr. July + A11	2004 ²⁾ 2006 2008
IEC 62040-2	2005	Uninterruptible power systems (UPS) - Part 2: Electromagnetic compatibility (EMC) requirements	EN 62040-2 + corr. November	2006 2006
IEC 62040-3 (mod)	1999	Uninterruptible power systems (UPS) - Part 3: Method of specifying the performance and test requirements	EN 62040-3	2001

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.



IEC 62040-1

Edition 1.0 2008-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Uninterruptible power systems (UPS) –
Part 1: General and safety requirements for UPS**

**Alimentations sans interruption (ASI) –
Partie 1: Exigences générales et règles de sécurité pour les ASI**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

XB

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

UNINTERRUPTIBLE POWER SYSTEMS (UPS) –**Part 1: General and safety requirements for UPS**

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 62040-1 has been prepared by subcommittee 22H: Uninterruptible power systems (UPS), of IEC technical committee 22: Power electronic systems and equipment.

This standard cancels and replaces the first edition of IEC 62040-1-1, published in 2004 and IEC 62040-1-2, published in 2004 and constitutes a technical revision. This standard merges all requirements of previous IEC 62040-1-1 and IEC 62040-1-2, with the addition of the following:

- update of normative references including IEC 60950-1 as Reference Document (RD);
- harmonization and alignment with current world recognized best practices;
- enhancement of backfeed protection, definition of ground-fault, revision of temperature rise tables and of hydrogen concentration in battery compartments.

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

FDIS	Report on voting
22H/104/FDIS	22H/106/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.

It is to be used with IEC 60950-1, Edition 2.0, which is referred to in this standard as "RD".

In this standard, the following print types are used:

- requirements proper and normative annexes: in roman type;
- compliance statements and test specifications: *in italic type*;
- notes and other informative matter: in smaller roman type;
- normative conditions within tables: in smaller roman type;
- terms that are defined in Clause 3: **bold**.

A list of all parts of the IEC 62040 series, under the general title: *Uninterruptible power systems (UPS)*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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.

The contents of the corrigendum of September 2008 have been included in this copy.