

**Uninterruptible power systems (UPS) -- Part 4:  
Environmental aspects - Requirements and reporting**

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**Uninterruptible power systems (UPS) -  
Part 4: Environmental aspects -  
Requirements and reporting  
(IEC 62040-4:2013)**

Alimentations sans interruption (ASI) -  
Partie 4: Aspects environnementaux -  
Exigences et déclaration  
(CEI 62040-4:2013)

Unterbrechungsfreie  
Stromversorgungssysteme (USV) -  
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Anforderungen und Berichterstattung  
(IEC 62040-4:2013)

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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 22H/157/FDIS, future edition 1 of IEC 62040-4, 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 approved by CENELEC as EN 62040-4:2013.

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) 2014-03-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-06-03

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

## Endorsement notice

The text of the International Standard IEC 62040-4:2013 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 62040-1:2008 + A1:2013	NOTE Harmonised as EN 62040-1:2008 + A1:2013 (not modified).
IEC 62040-2:2005	NOTE Harmonised as EN 62040-2:2006 (not modified).
IEC 62310-1:2005	NOTE Harmonised as EN 62310-1:2005 (not modified).
IEC 62310-2:2006	NOTE Harmonised as EN 62310-2:2007 (modified).
IEC 62310-3:2008	NOTE Harmonised as EN 62310-3:2008 (not modified).
IEC 62430:2009	NOTE Harmonised as EN 62430:2009 (not modified).
IEC 62535:2008	NOTE Harmonised as EN 62535:2009 (not modified).
ISO 9000:2000	NOTE Harmonised as EN ISO 9000:2000 (not modified).
ISO 14001:2004	NOTE Harmonised as EN ISO 14001:2004 (not modified).
ISO 14020:2000	NOTE Harmonised as EN ISO 14020:2001 (not modified).
ISO 14024:1999	NOTE Harmonised as EN ISO 14024:2000 (not modified).
ISO 14040:2006	NOTE Harmonised as EN ISO 14040:2006 (not modified).
ISO 14064-1	NOTE Harmonised as EN ISO 14064-1.

**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 62040-3	2011	Uninterruptible power systems (UPS) - Part 3: Method of specifying the performance and test requirements	EN 62040-3	2011
IEC 62474	2012	Material declaration for products of and for the electrotechnical industry	EN 62474	2012

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## INTRODUCTION

The publication of this product standard for environmental information of UPS is intended to become a reference document for regulators, manufacturers, purchasers, certifying bodies and users, so that the goal of promoting reduction of the environmental impact during a complete UPS life cycle is achieved.

This standard provides assistance to:

- determine essential environmental parts of environmental standards, regulations, code of conducts, agreements, and other requirements applicable to UPS to ensure compliance and avoid need of interpretation,
- respond to customer requirements by communicating environmental information in a standardized way,
- minimize reporting requirements by focusing on main applicable environmental requirements,
- anticipate upcoming environmental regulations and environmental programs applicable to UPS by proposing a standard that provides compliance requirements,
- standardize the transmission of environmental information in the supply chain,
- report and communicate environmental information to be used as a reference for measuring environmental progress between one generation of product and the next.

## UNINTERRUPTIBLE POWER SYSTEMS (UPS) –

### Part 4: Environmental aspects – Requirements and reporting

#### 1 Scope

This part of the IEC 62040 series specifies the process and requirements to declare the environmental aspects concerning uninterruptible power systems (UPS), with the goal of promoting reduction of any adverse environmental impact during a complete UPS life cycle. This product standard is harmonized with the applicable generic and horizontal environmental standards and contains additional details relevant to UPS.

This standard applies to movable, stationary and fixed UPS that deliver single or three-phase fixed frequency a.c. output voltage not exceeding 1 000 V a.c. and that present, generally through a d.c. link, an energy storage system and specified in IEC 62040 product standards for UPS (Part 1: Safety, Part 2: EMC and Part 3: Test and performance).

The following applications are excluded from the scope:

- conventional a.c. input and output distribution boards;
- d.c. distribution boards and their associated switches (e.g. switches for batteries, rectifier output or inverter input);
- stand-alone static transfer systems (STS) specified in IEC 62310 product standards for STS (Part 1: Safety, Part 2: EMC and Part 3: Test and performance);
- systems wherein the output voltage is derived from a rotating machine.

#### 2 Normative references

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.

IEC 62040-3:2011, *Uninterruptible power systems (UPS) – Part 3: Method of specifying the performance and test requirements*

IEC 62474:2012, *Material Declaration for Products of and for the Electrotechnical Industry* (available at <http://std.iec.ch/iec62474>)

#### 3 Terms and definitions

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

##### 3.1

##### **end of life**

life cycle stage of a product starting when it is removed from its intended use phase

##### 3.2

##### **end of life treatment**

any operations after a waste has been handed over to a facility for recovery or preparation for disposal