

Safety requirements for secondary batteries and battery installations Part 4: Batteries for use in portable appliances

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50272-4:2007 sisaldab Euroopa standardi EN 50272-4:2007 ingliskeelset teksti. Käesolev dokument on jõustatud 27.04.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 50272-4:2007 consists of the English text of the European standard EN 50272-4:2007. This document is endorsed on 27.04.2007 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: This standard applies to the safety aspects associated with the accommodation, the arrangements of circuits and the operation of secondary cells and batteries in portable appliances. In practice both primary and secondary batteries of most different electro-chemical systems are used to supply power to the same electrical equipment. Requirements are specified which oblige the manufacturers of appliances and secondary batteries to prevent the misuse of batteries in the course of operation and to provide sufficient information to users	Scope: This standard applies to the safety aspects associated with the accommodation, the arrangements of circuits and the operation of secondary cells and batteries in portable appliances. In practice both primary and secondary batteries of most different electro-chemical systems are used to supply power to the same electrical equipment. Requirements are specified which oblige the manufacturers of appliances and secondary batteries to prevent the misuse of batteries in the course of operation and to provide sufficient information to users
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English version

**Safety requirements for secondary batteries and battery installations -
Part 4: Batteries for use in portable appliances**

Règles de sécurité pour les batteries
d'accumulateurs et leur installation -
Partie 4: Batteries d'accumulateurs
utilisées dans les appareils portables

Sicherheitsanforderungen an Batterien
und Batterieanlagen -
Teil 4: Batterien für tragbare Geräte

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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 21X, Secondary cells and batteries. The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50272-4 on 2006-03-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
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 - latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2009-03-01
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Introduction

This standard gives information about the safety and health protection of persons when applying secondary batteries, which are used for DC power supply systems in portable appliances. Therefore the standard applies for commercially available secondary batteries and battery systems according to the requirements of the "Low Voltage Directive".

In the European countries similar relevant standards or specifications or parts of it exist, which shall be taken into account and will be replaced by this new standard.

In certain portable appliances or toys the discharge of both primary and secondary cells or batteries is possible. In case of interchange ability of these cells or batteries the standards for primary batteries of the EN 60086 series, Parts 1 to 5, shall have preference.

1 Scope

This standard applies to the safety aspects associated with the accommodation, the arrangements of circuits and the operation of secondary cells and batteries in portable appliances. Requirements are specified which oblige the manufacturers of appliances and secondary batteries to prevent the misuse of batteries in the course of operation to provide protective measures avoiding injury to persons in case of battery failure and to provide sufficient information to users.

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.

EN 50272-2	Safety requirements for secondary batteries and battery installations - Part 2: Stationary batteries
EN 60086-1	Primary batteries - Part 1: General (IEC 60086-1)
EN 60086-2	Primary batteries - Part 2: Physical and electrical specifications (IEC 60086-2)
EN 60086-3	Primary batteries - Part 3: Watch batteries (IEC 60086-3)
EN 60086-4	Primary batteries - Part 4: Safety of lithium batteries (IEC 60086-4)
EN 60086-5	Primary batteries - Part 5: Safety of batteries with aqueous electrolyte (IEC 60086-5)
EN 60335-1	Household and similar electrical appliances - Safety - Part 1: General requirements (IEC 60335-1)
EN 61056-2	General purpose lead-acid batteries (valve-regulated types) - Part 2: Dimensions, terminals and marking (IEC 61056-2)
EN 61429 + A11	Marking of secondary cells and batteries with the international recycling symbol ISO 7000-1135 and indications regarding directives 93/86/EEC and 91/157/EEC (IEC 61429)
EN 61951-1	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Portable sealed rechargeable single cells - Part 1: Nickel-cadmium (IEC 61951-1)

EN 61951-2	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Portable sealed rechargeable single cells - Part 2: Nickel-metal hydride (IEC 61951-2)
EN 61960	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Secondary lithium cells and batteries for portable applications (IEC 61960)
EN 62133	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable application (IEC 62133)
IEC 60050-482	International Electrotechnical Vocabulary - Chapter 482: Primary and secondary cells and batteries
IEC 60417 database	Graphical symbols for use on equipment

3 Definitions

3.1

battery for use in portable appliances

mainly used for the power supply of the electrical equipment or parts of it forming an integral, functional unit. Batteries for use in portable equipment are usually maintenance-free types. For further definitions see International Electrotechnical Vocabulary IEC 60050-482

3.2

secondary cell / battery

cell which is designed to be electrically recharged, basic functional unit providing a source of electrical energy by direct conversion of chemical energy, the cell (or battery) consists of an assembly of electrodes, separators, electrolyte, container and terminals
[IEV 482-01-03]

4 Operating instructions

Users of appliances shall be informed through operating instructions about the following items, with specific reference to batteries:

- a) proposed or applicable battery systems and battery dimensions according to the applicable standard,
- b) correct insertion of batteries into the equipment in terms of polarity,
- c) charging instructions for secondary batteries,
- d) prohibition of charging when using primary batteries,
- e) storage and temperature conditions,
- f) maintenance instructions,
- g) instructions for the prevention of hazard and measures to be taken following an accident,
- h) instructions about disposal.

Operating instructions for batteries in portable appliances must be provided and can be part of the equipment instructions. Required information for safe operation, like polarity, voltage, battery type, etc shall be repeated inside or close to the battery compartment.