OHUTUSNÕUDED LAETAVATE AKUPATAREIDE JA NENDE PAIGALDAMISE KOHTA. OSA 1: ÜLDINE OHUTUSTEAVE

Safety requirements for secondary batteries and battery installations - Part 1: General safety information

EESTI STANDARDIMIS- JA AKREDITEERIMISKESKUS
ESTONIAN CENTRE FOR STANDARDISATION AND ACCREDITATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 62485-1:2018 sisaldab Euroopa standardi EN IEC 62485-1:2018 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 62485-1:2018 consists of the English text of the European standard EN IEC 62485-1:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 04.05.2018.	Date of Availability of the European standard is 04.05.2018.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

EN IEC 62485-1

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English Version

Safety requirements for secondary batteries and battery installations - Part 1: General safety information (IEC 62485-1:2015)

Exigences de sécurité pour les batteries d'accumulateurs et les installations de batteries - Partie 1: Informations générales de sécurité (IEC 62485-1:2015)

Sicherheitsanforderungen an Sekundär-Batterien und Batterieanlagen - Teil 1: Allgemeine Sicherheitsinformationen (IEC 62485-1:2015)

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN IEC 62485-1:2018) consists of the text of IEC 62485-1:2015 prepared by IEC/TC 21 "Secondary cells and batteries".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-04-09
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2021-04-09

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60254-1	NOTE Harmonized as EN 60254-1.
IEC 60254-2	NOTE Harmonized as EN 60254-2.
IEC 60622	NOTE Harmonized as EN 60622.
IEC 60623	NOTE Harmonized as EN 60623.
IEC 60896-21	NOTE Harmonized as EN 60896-21.
IEC 60896-22	NOTE Harmonized as EN 60896-22.
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IEC 60952-3	NOTE Harmonized as EN 60952-3.
IEC 61056-1	NOTE Harmonized as EN 61056-1.
IEC 61056-2	NOTE Harmonized as EN 61056-2.
IEC 61427 series	NOTE Harmonized as EN 61427 series.
IEC 61951-1	NOTE Harmonized as EN 61951-1.
IEC 61951-2	NOTE Harmonized as EN 61951-2.
IEC 61959	NOTE Harmonized as EN 61959.
IEC 61960	NOTE Harmonized as EN 61960.
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IEC 62877-1	NOTE Harmonized as EN 62877-1.
IEC 62877-2	NOTE Harmonized as EN 62877-2.

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

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Safety requirements for secondary batteries and battery installations – Part 1: General safety information

Exigences de sécurité pour les batteries d'accumulateurs et les installations de batteries – Partie 1: Informations générales de sécurité

IEC 62485-1:2015-04(en-fr)

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INTERNATIONAL STANDARD

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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SAFETY REQUIREMENTS FOR SECONDARY BATTERIES AND BATTERY INSTALLATIONS –

Part 1: General safety information

FOREWORD

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International Standard IEC 62485-1 has been prepared by IEC technical committee 21: Secondary cells and batteries.

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

FDIS	Report on voting
21/851/FDIS	21/856/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.

A list of all parts of the IEC 62485 series can be found, under the general title *Safety requirements for secondary batteries and battery installations,* on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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.

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SAFETY REQUIREMENTS FOR SECONDARY BATTERIES AND BATTERY INSTALLATIONS –

Part 1: General safety information

1 Scope

This Part of IEC 62485 specifies the basic requirements for secondary batteries and battery installations.

The requirements regarding safety, reliability, life expectancy, mechanical strength, cycle stability, internal resistance, and battery temperature, are determined by various applications, and this, in turn, determines the selection of the battery design and technology.

In general, the requirements and definitions are specified for lead-acid and nickel-cadmium batteries. For other battery systems with aqueous electrolyte, the requirements may be applied accordingly.

The standard covers safety aspects taking into account hazards associated with:

– electricity (installation, charging, discharging, etc.);
– electrolyte;
– inflammable gas mixtures;
– storage and transportation.

With respect to electrical safety, reference is made to IEC 60364-4-41.

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 60050-482:2004, *International Electrotechnical Vocabulary – Part 482: Primary and secondary cells and batteries*

IEC 60364-4-41, *Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock*

IEC 60993, *Electrolyte for vented nickel-cadmium cells*

IEC 61429:1995, *Marking of secondary cells and batteries with the international recycling symbol ISO 7000-1135*

IEC 62485-2, *Safety requirements for secondary batteries and battery installations – Part 2: Stationary batteries*

IEC 62485-3, *Safety requirements for secondary batteries and battery installations – Part 3: Traction batteries*

IEC 62485-4, *Safety requirements for secondary batteries and battery installations – Part 4: Valve-regulated lead-acid batteries for use in portable appliances*

ISO 7000, *Graphical symbols for use on equipment – Registered symbols*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-482, as well the following apply.

3.1
stationary battery
stationary battery installation
battery installed in a fixed location and not generally intended to be moved from place to place

Note 1 to entry: The batteries are permanently connected to a charger and in many cases in addition to the load and the power supply and are incorporated into stationary equipment or installed in battery rooms for use in telecom, uninterruptible power supply (UPS), utility switching, emergency power or similar applications.

3.2
traction battery
secondary battery designed to provide the propulsion energy for electrical vehicles

3.3
cranking battery
battery used for starting of internal combustion engines in stationary, railway or other onboard applications

3.4
starter battery
battery primarily used as a power source for the starting of internal combustion engines, lighting and also for auxiliary equipment of internal combustion engine vehicles

3.5
onboard battery
battery used for power supply of a DC network onboard ships, rail vehicles or off-road vehicles without authorization for public traffic

3.6
aircraft battery
battery used in aircrafts and helicopters for starting the auxiliary engine and powering the DC network

3.7
portable battery
battery mainly used for power supply of portable appliances

Note 1 to entry: Batteries for portable equipment are usually maintenance-free.

3.8
battery room
room in a building dedicated for the accommodation of stationary batteries

3.9
battery enclosure
enclosure designed for the accommodation of batteries to protect against environmental impacts, unauthorised access of persons and hazards caused by the batteries