

Electrical energy storage (EES) systems - Part 5-2:
Safety requirements for grid-integrated EES systems -
Electrochemical-based systems

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 62933-5-2:2020 sisaldab Euroopa standardi EN IEC 62933-5-2:2020 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 62933-5-2:2020 consists of the English text of the European standard EN IEC 62933-5-2:2020.
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English Version

**Electrical energy storage (EES) systems - Part 5-2: Safety
requirements for grid-integrated EES systems - Electrochemical-
based systems
(IEC 62933-5-2:2020)**

Systèmes de stockage de l'énergie électrique (EES) - Partie
5-2: Exigences de sécurité pour les systèmes EES intégrés
dans un réseau - Systèmes électrochimiques
(IEC 62933-5-2:2020)

Elektrische Energiespeichersysteme (EES-Systeme) - Teil
5-2: Sicherheitsanforderungen an netzintegrierte EES-
Systeme elektrochemische Systeme
(IEC 62933-5-2:2020)

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European foreword

The text of document 120/173/FDIS, future edition 1 of IEC 62933-5-2, prepared by IEC/TC 120 "Electrical Energy Storage (EES) Systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62933-5-2:2020.

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) 2021-02-21
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IEC 60364-4-41	NOTE	Harmonized as HD 60364-4-41
IEC 60364-4-42	NOTE	Harmonized as HD 60364-4-42
IEC 60364-4-43	NOTE	Harmonized as HD 60364-4-43
IEC 60721 (series)	NOTE	Harmonized as EN 60721 (series)
IEC 60896-21	NOTE	Harmonized as EN 60896-21
IEC 60896-22	NOTE	Harmonized as EN 60896-22
IEC 61140	NOTE	Harmonized as EN 61140
IEC 61427-1	NOTE	Harmonized as EN 61427-1
IEC 61427-2	NOTE	Harmonized as EN 61427-2
IEC 61508 (series)	NOTE	Harmonized as EN 61508 (series)
IEC 61511-1:2016	NOTE	Harmonized as EN 61511-1:2017 (not modified)
IEC 62040-1	NOTE	Harmonized as EN IEC 62040-1
IEC 62040-2	NOTE	Harmonized as EN IEC 62040-2
IEC 62116:2014	NOTE	Harmonized as EN 62116:2014 (not modified)
IEC 62351 (series)	NOTE	Harmonized as EN 62351 (series)
IEC 62381:2012	NOTE	Harmonized as EN 62381:2012 (not modified)
IEC 62443-2-4	NOTE	Harmonized as EN IEC 62443-2-4
IEC 62485-1	NOTE	Harmonized as EN IEC 62485-1
IEC 62909-1	NOTE	Harmonized as EN IEC 62909-1
IEC 62932-1:2020	NOTE	Harmonized as EN IEC 62932-1:2020 (not modified)
ISO 1182	NOTE	Harmonized as EN ISO 1182
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ISO 13732-1:2006	NOTE	Harmonized as EN ISO 13732-1:2008 (not modified)
ISO 13850:2015	NOTE	Harmonized as EN ISO 13850:2015 (not modified)

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-52	-	Environmental testing - Part 2-52: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution)	EN IEC 60068-2-52	-
IEC 60079-7	2015	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"	EN 60079-7	2015
+ A1	2017		+ A1	2018
IEC 60079-13	-	Explosive atmospheres - Part 13: Equipment protection by pressurized room "p" and artificially ventilated room "v"	EN 60079-13	-
IEC 60079-29	series	Explosive atmospheres - Gas detectors	EN 60079-29	series
IEC 60364	series	Low-voltage electrical installations	-	-
IEC 60364-4-44	-	Low-voltage electrical installations - Part 4-44: Protection for safety - Protection against voltage disturbances and electromagnetic disturbances	HD 60364-4-442	-
IEC 60364-6	2016	Low voltage electrical installations - Part 6: Verification	HD 60364-6	2016
			+ A11	2017
			+ A12	2017
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	-	-
IEC 60664-1	2007	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	2007
IEC 60812	-	Failure modes and effects analysis (FMEA and FMECA)	EN IEC 60812	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61000-1-2	-	Electromagnetic compatibility (EMC) - Part 1-2: General - Methodology for the achievement of functional safety of electrical and electronic systems including equipment with regard to electromagnetic phenomena	EN 61000-1-2	-
IEC 61000-6-7	-	Electromagnetic compatibility (EMC) - Part 6-7: Generic standards - Immunity requirements for equipment intended to perform functions in a safety-related system (functional safety) in industrial locations	EN 61000-6-7	-
IEC 61025	-	Fault tree analysis (FTA)	-	-
IEC 61660-1	-	Short-circuit currents in d.c. auxiliary installations in power plants and substations - Part 1: Calculation of short-circuit currents	EN 61660-1	-
IEC 61660-2	-	Short-circuit currents in d.c. auxiliary installations in power plants and substations - Part 2: Calculation of effects	EN 61660-2	-
IEC 61882	-	Hazard and operability studies (HAZOP studies) - Application guide	EN 61882	-
IEC 61936-1 (mod)	2010	Power installations exceeding 1 kV a.c. - Part 1: Common rules	EN 61936-1	2010
			+ AC	2013
+ A1	2014		+ A1	2014
IEC 62305-2	-	Protection against lightning - Part 2: Risk management	-	-
IEC 62368-1	-	Audio/video, information and communication technology equipment - Part 1: Safety requirements	EN IEC 62368-1	-
IEC 62477-1	2012	Safety requirements for power electronic converter systems and equipment - Part 1: General	EN 62477-1	2012
			+ A11	2014
+ A1	2016		+ A1	2017
IEC 62485-2	-	Safety requirements for secondary batteries and battery installations - Part 2: Stationary batteries	EN IEC 62485-2	-
IEC 62619	2017	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for secondary lithium cells and batteries, for use in industrial applications	EN 62619	2017

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62933-1	-	Electrical energy storage (EES) systems - Part 1: Vocabulary	EN IEC 62933-1	-
IEC/TS 62933-5-1	2017	Electrical energy storage (EES) systems - Part 5-1: Safety considerations for grid integrated EES systems - General specification	-	-
ISO/IEC Guide 51	2014	Safety aspects - Guidelines for their inclusion in standards	-	-

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Electrical energy storage (EES) systems –
Part 5-2: Safety requirements for grid-integrated EES systems –
Electrochemical-based systems**

**Systèmes de stockage de l'énergie électrique (EES) –
Partie 5-2: Exigences de sécurité pour les systèmes EES intégrés dans un
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NORME INTERNATIONALE



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Electrochemical-based systems**

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The text of this International Standard is based on the following documents:

FDIS	Report on voting
120/173/FDIS	120/182/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62933 series, published under the general title *Electrical energy storage (EES) systems*, can be found on the IEC website.

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