ICS 13.020.30 SLOVENSKÁ TECHNICKÁ NORMA Február 2019

STN	**Systémy na akumuláciu elektrickej energie (EES) Časť 2-1: Parametre a skúšobné metódy Všeobecná špecifikácia**	**STN EN IEC 62933-2-1** 36 4400

Electrical energy storage (EES) systems - Part 2-1: Unit parameters and testing methods - General specification

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/19

Obsahuje: EN IEC 62933-2-1:2018, IEC 62933-2-1:2017

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62933-2-1

March 2018

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English Version

Electrical energy storage (EES) systems - Part 2-1: Unit parameters and testing methods - General specification (IEC 62933-2-1:2017)

Systèmes de stockage d'énergie électrique - Partie 2-1 : Paramètres d'unité et méthodes d'essai - Spécification générale (IEC 62933-2-1:2017)

Elektrische Energiespeichersysteme - Teil 2-1: Einheitsparameter und Prüfverfahren - Allgemeine Festlegungen (IEC 62933-2-1:2017)

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

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

Ref. No. EN IEC 62933-2-1:2018 E

EN IEC 62933-2-1:2018 (E)

European foreword

The text of document 120/109/FDIS, future edition 1 of IEC 62933-2-1, 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 62933-2-1:2018.

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)	2018-10-17
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2021-01-17

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The text of the International Standard IEC 62933-2-1:2017 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 62620	NOTE	Harmonized as EN 62620.
IEC 62933-3-1[1]	NOTE	Harmonized as EN 62933-3-1[2].
IEC 60060-1	NOTE	Harmonized as EN 60060-1.
IEC 60068-2(series)	NOTE	Harmonized as EN 60068-2 (series).
IEC 60721-2-2	NOTE	Harmonized as EN 60721-2-2.
IEC 60721-2-4	NOTE	Harmonized as HD 478.2.4 S1.
IEC 60146-1-1	NOTE	Harmonized as EN 60146-1-1.
IEC 60146-1-3	NOTE	Harmonized as EN 60146-1-3.
IEC 60146-2	NOTE	Harmonized as EN 60146-2.
IEC 62109-1	NOTE	Harmonized as EN 62109-1.
IEC 62109-2	NOTE	Harmonized as EN 62109-2.
IEC 62116	NOTE	Harmonized as EN 62116.
IEC 62477-1:2012	NOTE	Harmonized as EN 62477-1:2012 (not modified).
IEC 62909-1	NOTE	Harmonized as EN 62909-1.
IEC 60947-1	NOTE	Harmonized as EN 60947-1.
IEC 60947-2	NOTE	Harmonized as EN 60947-2
IEC 60947-3	NOTE	Harmonized as EN 60947-3.
IEC 60947-4-1	NOTE	Harmonized as EN 60947-4-1.
IEC 61439-1	NOTE	Harmonized as EN 61439-1.
IEC 61439-2	NOTE	Harmonized as EN 61439-2.
IEC 61439-3	NOTE	Harmonized as EN 61439-3.

[1] Under development. Stage at the time of publication: IEC CDM 62933-3-1:2017.

[2] Under development. Stage at the time of publication: prEN 62933-3-1:2016.

IEC 61439-5	NOTE	Harmonized as EN 61439-5.
IEC 61439-6	NOTE	Harmonized as EN 61439-6.
IEC 62271-1	NOTE	Harmonized as EN 62271-1.
IEC 62271-100	NOTE	Harmonized as EN 62271-100.
IEC 62271-102	NOTE	Harmonized as EN 62271-102.
IEC 62271-103	NOTE	Harmonized as EN 62271-103.
IEC 62271-105	NOTE	Harmonized as EN 62271-105.
IEC 62271-200	NOTE	Harmonized as EN 62271-200.
IEC 62271-202	NOTE	Harmonized as EN 62271-202.
IEC 60076-1	NOTE	Harmonized as EN 60076-1.
IEC 60076-2	NOTE	Harmonized as EN 60076-2.
IEC 60076-3	NOTE	Harmonized as EN 60076-3.
IEC 60076-5	NOTE	Harmonized as EN 60076-5.
IEC 60076-10	NOTE	Harmonized as EN 60076-10.
IEC 60076-11	NOTE	Harmonized as EN 60076-11.
IEC 60076-13	NOTE	Harmonized as EN 60076-13.
IEC 61558-1	NOTE	Harmonized as EN 61558-1.
IEC 60038	NOTE	Harmonized as EN 60038.
IEC 60071-1	NOTE	Harmonized as EN 60071-1.
IEC 60364-1	NOTE	Harmonized as HD 60364-1.
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 60364-4-44	NOTE	Harmonized as HD 60364-4-442 and HD 60364-4-444.
IEC 60364-5-52	NOTE	Harmonized as HD 60364-5-52.
IEC 60364-5-53	NOTE	Harmonized as HD 60364-5-53.
IEC 60364-5-54	NOTE	Harmonized as HD 60364-5-54.
IEC 60364-7-712	NOTE	Harmonized as HD 60364-7-712.
IEC 62305-1	NOTE	Harmonized as EN 62305-1.
IEC 62305-2	NOTE	Harmonized as EN 62305-2.
IEC 62305-3	NOTE	Harmonized as EN 62305-3.
IEC 62305-4	NOTE	Harmonized as EN 62305-4.
IEC 62446-1	NOTE	Harmonized as EN 62446-1.
IEC 61672-1	NOTE	Harmonized as EN 61672-1.
IEC 61672-2	NOTE	Harmonized as EN 61672-2.
IEC 61000-2-2	NOTE	Harmonized as EN 61000-2-2.
IEC 61000-3-2	NOTE	Harmonized as EN 61000-3-2.
IEC 61000-3-3	NOTE	Harmonized as EN 61000-3-3.
IEC 61000-3-11	NOTE	Harmonized as EN 61000-3-11.
IEC 61000-3-12	NOTE	Harmonized as EN 61000-3-12.
IEC 61000-6-1	NOTE	Harmonized as EN 61000-6-1.
IEC 61000-6-2	NOTE	Harmonized as EN 61000-6-2.

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IEC 61000-6-3	NOTE	Harmonized as EN 61000-6-3.
IEC 61000-6-5	NOTE	Harmonized as EN 61000-6-5.

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.

Publication	Year	Title	EN/HD	Year
IEC 60364-6	-	Low-voltage electrical installations - Part 6: Verification	HD 60364-6	-
IEC 61000-4-7	-	Electromagnetic compatibility (EMC) -- Part 4-7: Testing and measurement techniques - General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto	EN 61000-4-7	-
IEC 61400-21	-	Wind turbines -- Part 21: Measurement and assessment of power quality characteristics of grid connected wind turbines	EN 61400-21	-
IEC TR 61850-90-7	-	Communication networks and systems for power utility automation - Part 90-7: Object models for power converters in distributed energy resources (DER) systems	-	-
IEC 61936-1	-	Power installations exceeding 1 kV a.c. -- Part 1: Common rules	EN 61936-1	-
IEC 62933-1[3]	-	Electrical energy storage (EES) systems – Part 1: Vocabulary	EN 62933-1[4]	-

[3] Under preparation. Stage at the time of publication: IEC FDIS 62933-1:2017.

[4] Under preparation. Stage at the time of publication: FprEN 62933-1:2017

IEC 62933-2-1

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INTERNATIONAL STANDARD

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Electrical energy storage (EES) systems – Part 2-1: Unit parameters and testing methods – General specification

Systèmes de stockage de l'énergie électrique (EES) – Partie 2-1: Paramètres unitaires et méthodes d'essai – Spécifications générales

IEC 62933-2-1:2017-12(en-fr)

IEC 62933-2-1

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INTERNATIONAL STANDARD

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRICAL ENERGY STORAGE (EES) SYSTEMS –

Part 2-1: Unit parameters and testing methods – General specification

FOREWORD

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International Standard IEC 62933-2-1 has been prepared by IEC technical committee TC 120: Electrical energy storage (EES) systems.

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

FDIS	Report on voting
120/109/FDIS	120/115/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.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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ELECTRICAL ENERGY STORAGE (EES) SYSTEMS –

Part 2-1: Unit parameters and testing methods – General specification

1 Scope

This part of IEC 62933 focuses on unit parameters and testing methods of EES systems. The energy storage devices and technologies are outside the scope of this document. This document deals with EES system performance defining:

– unit parameters,

– testing methods.

2 Normative references

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.

IEC 60364-6, *Low voltage electrical installations – Part 6: Verification*

IEC 61000-4-7, *Electromagnetic compatibility (EMC) – Part 4-7: Testing and measurement techniques – General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto*

IEC 61400-21, *Wind turbines – Part 21: Measurement and assessment of power quality characteristics of grid connected wind turbines*

IEC TR 61850-90-7, *Communication networks and systems for power utility automation – Part 90-7: Object models for power converters in distributed energy resources (DER) systems*

IEC 61936-1, *Power installations exceeding 1 kV a.c. - Part 1: Common rules*

IEC 62933-1[1], *Electrical energy storage (EES) systems – Part 1: Vocabulary*

[1] Under preparation. Stage at the time of publication: IEC FDIS 62933-1:2017