SVENSK STANDARD SS-EN IEC 62933-1

Fastställd	Utgåva	Sida	Ansvarig kommitté
2018-06-13	1	1 (1+35)	SEK TK 120

Elektriska energilagringssystem (EES) – Del 1: Terminologi

Electrical energy storage (EES) systems – Part 1: Vocabulary

Som svensk standard gäller europastandarden EN IEC 62933-1:2018. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 62933-1:2018.

Nationellt förord

Europastandarden EN IEC 62933-1:2018

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 62933-1, First edition, 2018 - Electrical energy storage (EES) systems - Part 1: Vocabulary**

utarbetad inom International Electrotechnical Commission, IEC.

EN från CENELEC som är identiska med motsvarande IEC-standarder och som görs tillgängliga för nationalkommittéerna efter den 1 januari 2018 får en beteckning som inleds med EN IEC istället för som tidigare bara EN.

ICS 01.040.17

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Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62933-1

April 2018

ICS 01.040.17

English Version

Electrical Energy Storage (EES) systems - Part 1: Vocabulary (IEC 62933-1:2018)

Systèmes de stockage de l'énergie électrique (EES) - Partie 1: Vocabulaire (IEC 62933-1:2018)

Elektrische Energiespeichersysteme (EES-Systeme) - Teil 1: Terminologie (IEC 62933-1:2018)

This European Standard was approved by CENELEC on 2018-04-03. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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 62933-1:2018 E

SEK Svensk Elstandard

European foreword

The text of document 120/116/FDIS, future edition 1 of IEC 62933-1, 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 62933-1:2018.

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)	2019-01-03
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2021-04-03

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

Endorsement notice

The text of the International Standard IEC 62933-1:2018 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 60027 (series)	NOTE	Harmonized as EN 60027 (series).
IEC 60964:2009	NOTE	Harmonized as EN 60964:2010 (not modified).
IEC 61165:2006	NOTE	Harmonized as EN 61165:2006 (not modified).
IEC 61427-2:2015	NOTE	Harmonized as EN 61427-2:2015 (not modified).
IEC 61987-1:2006	NOTE	Harmonized as EN 61987-1:2006 (not modified).
IEC 62040-1:2017	NOTE	Harmonized as EN IEC 62040-1[1].
IEC 62477-1:2012	NOTE	Harmonized as EN 62477-1:2012 (not modified).
ISO 19353:2015	NOTE	Harmonized as EN ISO 19353:2016 (not modified).

[1] To be published. Stage at the time of publication: FprEN 62040-1:2017.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRICAL ENERGY STORAGE (EES) SYSTEMS –

Part 1: Vocabulary

FOREWORD

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International Standard IEC 62933-1 has been prepared by IEC technical committee 120: Electrical Energy Storage (EES) Systems.

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

FDIS	Report on voting
120/116/FDIS	120/119/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 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 publication will remain unchanged until the stability date indicated on the IEC web site 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

The purpose of this terminology document is to provide terms and definitions for all the publications under the responsibility of TC 120, that standardize electrical energy storage systems (EES systems) including unit parameters, test methods, planning, installation, safety and environmental issues. An EES system includes any type of grid-connected energy storage which can both store electrical energy and provide electrical energy (from electricity to electricity).

All TC 120 normative documents are subject to revision, this part of IEC 62933 will be revised together with other TC 120 publications in order to avoid mismatches.

From the technical point of view, an EES system can be a complex multi stage system with several possible energy conversions. Each stage is made by components well standardized (e.g. transformers, power converter systems) or innovative components (e.g. new types of batteries). Several IEC product standards give definitions necessary for the understanding of certain terms used for these components. The International Electrotechnical Vocabulary (IEV, IEC 60050, http://www.electropedia.org), the IEC Glossary (http://std.iec.ch/glossary) and the ISO Online Browsing Platform (OBP, http://www.iso.org/obp) allow on-line access to this information. This terminology document completes the scenario by giving definitions necessary at the system level.

Without a strong standardization of EES systems terminology, focal terms can have a different meaning in EES systems related to different storage technologies. This aspect is critical also from the market point of view, it impacts economics and this can become a barrier for tender processes. The correct comparison among different options is fundamental, therefore basic terms and definitions impact economic decisions.

Terms and definitions have been harmonized with the IEV, the OBP, the IEC Glossary and other IEC documents as far as possible. Definitions not included in this terminology document may be found elsewhere in other IEC documents.

The use of abbreviated terms has been optimized, on the one hand to avoid tedious repetition and, on the other hand to avoid confusion. A minimum set of abbreviated terms was identified and used in the definitions, the other terms are written out in full spelling when needed. The widely accepted abbreviated terms are:

EESS – EES System – Electrical energy storage system;

EES – Electrical energy storage;

POC – Point of connection.

ELECTRICAL ENERGY STORAGE (EES) SYSTEMS –

Part 1: Vocabulary

1 Scope

This part of IEC 62933 defines terms applicable to electrical energy storage (EES) systems including terms necessary for the definition of unit parameters, test methods, planning, installation, safety and environmental issues.

This terminology document is applicable to grid-connected systems able to extract electrical energy from an electric power system, store it internally, and inject electrical power to an electric power system. The step for charging and discharging an EES system may comprise an energy conversion.

2 Normative references

There are no normative references in this document.