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Elektriska energilagringssystem (EES) – Del 3-1: Planering och bedömning av elektriska energilagringssystem – Allmänt

*Electrical energy storage (EES) systems –
Part 3-1: Planning and performance assessment of electrical energy storage systems –
General specification*

Som svensk standard gäller europastandarden EN IEC 62933-3-1:2026. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 62933-3-1:2026.

Nationellt förord

Europastandarden EN IEC 62933-3-1:2026

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- **IEC 62933-3-1, First edition, 2025 - Electrical energy storage (EES) systems – Part 3-1: Planning and performance assessment of electrical energy storage systems – General specification**

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English Version

**Electrical energy storage (EES) systems - Part 3-1: Planning and
performance assessment of electrical energy storage systems -
General specification
(IEC 62933-3-1:2025)**

Systèmes de stockage de l'énergie électrique (EES) - Partie
3-1: Planification et évaluation des performances des
systèmes de stockage de l'énergie électrique -
Spécifications générales
(IEC 62933-3-1:2025)

Elektrische Energiespeichersysteme - Teil 3-1: Planung und
Leistungsbewertung von elektrischen
Energiespeichersystemen - Allgemeine Festlegungen
(IEC 62933-3-1:2025)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

European foreword

The text of document 120/426/FDIS, future edition 1 of IEC 62933-3-1, prepared by TC 120 "Electrical Energy Storage (EES) systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62933-3-1:2026.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2027-01-31 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2029-01-31 document have to be withdrawn

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Endorsement notice

The text of the International Standard IEC 62933-3-1:2025 was approved by CENELEC as a European Standard without any modification.

IEC 60068-2 (series)	NOTE	Approved as EN IEC 60068-2 (series)
IEC 60068-3-3	NOTE	Approved as EN IEC 60068-3-3
IEC 60721-1	NOTE	Approved as EN 60721-1
IEC 60721-2-2	NOTE	Approved as EN IEC 60721-2-2
IEC 60721-2-4	NOTE	Approved as EN IEC 60721-2-4
IEC 60721-3-3	NOTE	Approved as EN IEC 60721-3-3
IEC 60038	NOTE	Approved as EN 60038
IEC 60071-1	NOTE	Approved as EN IEC 60071-1
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IEC 60364-4-41	NOTE	Approved as HD 60364-4-41
IEC 60364-4-42	NOTE	Approved as HD 60364-4-42
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IEC 61000-3-11	NOTE	Approved as EN IEC 61000-3-11
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IEC 61000-6-1	NOTE	Approved as EN IEC 61000-6-1
IEC 61000-6-2	NOTE	Approved as EN IEC 61000-6-2
IEC 61000-6-3	NOTE	Approved as EN IEC 61000-6-3
IEC 61000-6-4	NOTE	Approved as EN IEC 61000-6-4
IEC 61000-6-5	NOTE	Approved as EN 61000-6-5
IEC 60870-5-101	NOTE	Approved as EN 60870-5-101
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IEC 60870-6 (series)	NOTE	Approved as EN 60870-6 (series)
IEC 61850-7-420	NOTE	Approved as EN IEC 61850-7-420

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 60721-1	-	Classification of environmental conditions - Part 1: Environmental parameters and their severities	EN 60721-1	-
IEC 61850	series	Communication networks and systems for power utility automation - Part 10: Conformance testing	EN 61850	series
IEC 62351	series	Power systems management and associated information exchange - Data and communications security - Part 11: Security for XML documents	EN 62351	series
IEC 62443	series	Security for industrial automation and control systems - Part 4-2: Technical security requirements for IACS components	EN IEC 62443-4	series
IEC 62933-1	2024	Electrical energy storage (EES) systems - Part 1: Vocabulary	EN IEC 62933-1	2024
IEC 62933-2-1	2017	Electrical energy storage (EES) systems - Part 2-1: Unit parameters and testing methods - General specification	EN IEC 62933-2-1	2018
IEC 62933-5-1	-	Electrical energy storage (EES) systems - Part 5-1: Safety considerations for grid-integrated EES systems - General specification	EN IEC 62933-5-1	-
ISO/IEC 27000	-	Information technology - Security techniques - Information security management systems - Overview and vocabulary	-	-

INTERNATIONAL STANDARD

**Electrical energy storage (EES) systems -
Part 3-1: Planning and performance assessment of electrical energy storage
systems - General specification**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Electrical energy storage (EES) systems -
Part 3-1: Planning and performance assessment of
electrical energy storage systems - General specification**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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IEC 62933-3-1 has been prepared by IEC technical committee TC 120: Electrical Energy Storage (EES) systems. It is an International Standard.

This first edition cancels and replaces the first edition of IEC TS 62933-3-1 published in 2018. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) improvements regarding design and sizing of an EES system;
- b) adding "EES system decommissioning";
- c) adding "Inspection and test aspects";
- d) adding "Feasibility and permission";

- e) adding "Basic planned activities for feasibility study";
- f) adding "Aspects considered with regard to EES system decommissioning".

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

Draft	Report on voting
120/426/FDIS	120/442/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

IEC 62933-2-1 should be used as a reference when selecting testing items and their corresponding evaluation methods as well as principal parameters. The principal terms used in this document are defined in IEC 62933-1. Environmental issues are covered by IEC TS 62933-4-1. The personnel safety issues are covered by IEC 62933-5-1.

1 Scope

This part of IEC 62933 is applicable to EES systems designed for grid-connected indoor or outdoor installation and operation. This document considers:

- necessary functions and capabilities of EES systems;
- sizing and design of EES system;
- operation of EES system;
- test items and performance assessment methods for EES systems;
- requirements for monitoring and acquisition of EES system operating parameters;
- exchange of system information and control capabilities required;
- maintenance of EES system.

Stakeholders of this document comprise personnel involved with EES systems, which include:

- planners of electric power systems and EES systems;
- owners of EES systems;
- operators of electric power systems and EES systems;
- constructors;
- suppliers of EES systems and its equipment;
- aggregators.

Use-case-specific technical documentation, including planning and installation specific tasks such as system design, monitoring, measurement, tests, operation and maintenance, are very important and can be found throughout this document.

NOTE This document has been written for AC grids, however parts can also apply to DC grids.

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 60721-1, *Classification of environmental conditions - Part 1: Environmental parameters and their severities*

IEC 61850 (all parts), *Communication networks and systems for power utility automation*

IEC 62351 (all parts), *Power systems management and associated information exchange - Data and communications security*

IEC 62443 (all parts), *Industrial communication networks - Network and system security*

IEC 62933-1:2024, *Electrical energy storage (EES) systems - Part 1: Vocabulary*

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

IEC 62933-5-1, *Electrical energy storage (EES) systems - Part 5-1: Safety considerations for grid-integrated EES systems - General specification*

ISO/IEC 27000, *Information technology - Security techniques - Information security management systems - Overview and vocabulary*