

STN	Systémy na akumuláciu elektrickej energie (EES) Časť 4-3: Požiadavky na ochranu batériových systémov na ukladanie energie (BESS) v závislosti od podmienok prostredia	STN EN IEC 62933-4-3 36 4400
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Electrical energy storage (EES) systems - Part 4-3: Protection requirements of battery-based energy storage systems (BESS) according to environmental conditions

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. 03/26

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EUROPEAN STANDARD

EN IEC 62933-4-3

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Electrical energy storage (EES) systems - Part 4-3: Protection requirements of battery-based energy storage systems (BESS) according to environmental conditions (IEC 62933-4-3:2025)

Systèmes de stockage de l'énergie électrique (EES) - Partie 4-3: Exigences de protection des systèmes de stockage de l'énergie sur batterie (BESS) en fonction des conditions environnementales (IEC 62933-4-3:2025)

Elektrische Energiespeichersysteme (EES) - Teil 4-3: Die Schutzanforderungen von BESS entsprechend den Umweltbedingungen und Standorttypen (IEC 62933-4-3:2025)

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EN IEC 62933-4-3:2025 (E)**European foreword**

The text of document 120/419/FDIS, future edition 1 of IEC 62933-4-3, prepared by TC 120 "Electrical Energy Storage (EES) systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62933-4-3:2025.

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IEC 62477-1:2022	NOTE	Approved as EN IEC 62477-1:2023 (not modified)
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Annex ZA **(normative)**

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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INTERNATIONAL STANDARD

**Electrical energy storage(EES) systems -
Part 4-3: Protection requirements of battery-based energy storage systems
(BESS) according to environmental conditions**



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IEC Secretariat
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Electrical energy storage (EES) systems -
Part 4-3: Protection requirements of battery-based energy storage
systems (BESS) according to environmental conditions**

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IEC 62933-4-3 has been prepared by IEC technical committee TC120: Electrical Energy Storage (EES) systems. It is an International Standard.

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

Draft	Report on voting
120/419/FDIS	120/433/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.

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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.

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- reconfirmed,
- withdrawn, or
- revised.

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INTRODUCTION

According to reports over the world, BESS have been influenced by environmental and climatic conditions of the areas where they are installed. The BESS can be particularly affected by temperature, humidity, and vibration and natural disasters. In order to minimize the impacts, this document is expected to be of great help in stable installation and operation by presenting the causes, risk factors and the appropriate measures for each environmental condition when installing the BESS.

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1 Scope

This part of IEC 62933 applies to the effects of the environmental conditions on battery-based energy storage systems (BESS). This document addresses these effects and identifies causes, chains of events and final effects on the BESS. Based on those effects, preventative or mitigating measures are described. Typical environmental effects on the BESS include, but are not limited to, the effects of lightning, seismic activities, water, air, flora, fauna, and humans. The described measures focus on the entire BESS including all power and communication connections and their point of connections (POCs).

The scope of this document is limited to BESS specific requirements and operating conditions. Specific design or safety requirements of individual BESS subsystems are excluded from this document.

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

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