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Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for secondary lithium cells and batteries for use in electrical energy storage systems

Accumulateurs alcalins et autres accumulateurs à électrolyte non acide – Exigences de sécurité pour les accumulateurs au lithium pour utilisation dans des systèmes de stockage d'énergie électrique



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON-ACID ELECTROLYTES – SAFETY REQUIREMENTS FOR SECONDARY LITHIUM CELLS AND BATTERIES FOR USE IN ELECTRICAL ENERGY STORAGE SYSTEMS

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

FDIS	Report on voting
21A/718/FDIS	21A/723/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.

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INTRODUCTION

This document covers safety requirements for secondary lithium cells and batteries for use in Electrical Energy Storage Systems and is under the umbrella standard IEC 62619 as shown in Figure 1. As an umbrella standard, IEC 62619 had been developed which covered various industrial applications in 2017.

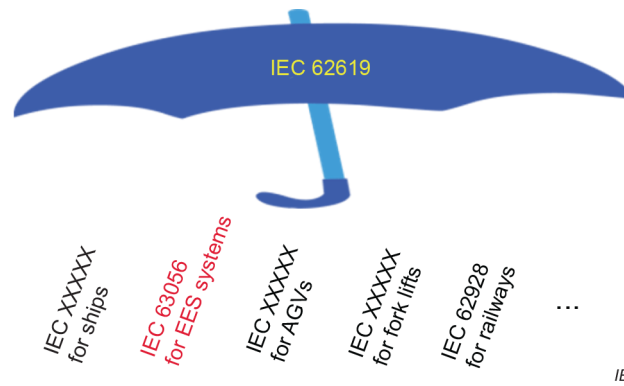


Figure 1 – IEC 62619 as umbrella standard to various industrial applications

SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON-ACID ELECTROLYTES – SAFETY REQUIREMENTS FOR SECONDARY LITHIUM CELLS AND BATTERIES FOR USE IN ELECTRICAL ENERGY STORAGE SYSTEMS

1 Scope

This document specifies requirements and tests for the product safety of secondary lithium cells and batteries used in electrical energy storage systems (Figure 2) with a maximum DC voltage of 1 500 V (nominal).

Basic safety requirements for the secondary lithium cells and batteries used in industrial applications are included in IEC 62619. This document provides additional or specific requirements for electrical energy storage systems.

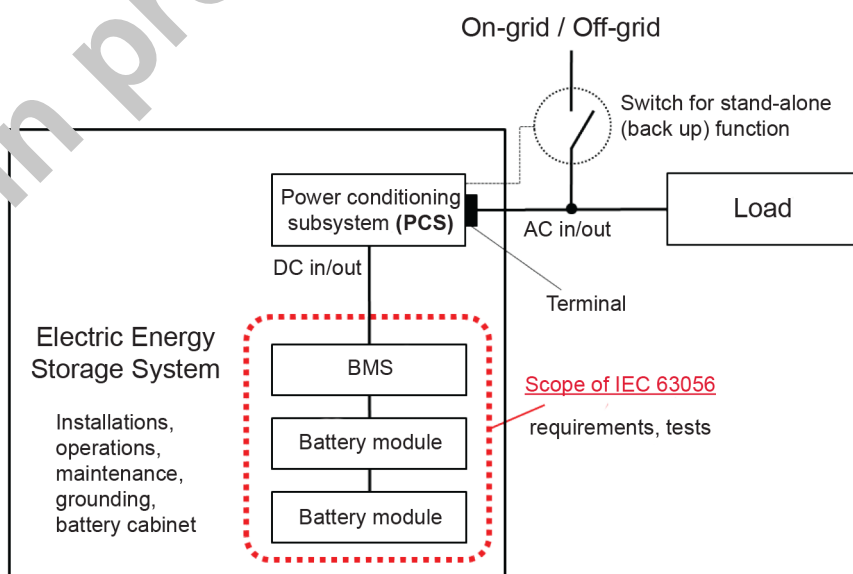
Since this document covers batteries for various electrical energy storage systems, it includes those requirements which are common and minimum to the electrical energy storage systems.

Examples of appliances that are within the scope of this document are:

- telecommunications,
- central emergency lighting and alarm systems,
- stationary engine starting,
- photovoltaic systems,
- home (residential) energy storage systems (HESS), and
- large energy storage: on-grid/off-grid

This document applies to cells and batteries for uninterruptible power supplies (UPS).

This document does not apply to portable systems 500 Wh or below, which are covered by IEC 61960-3.



IEC

Figure 2 – Scope of IEC 63056