

Pack battery numbering rules



Overview

This guide provides an overview of the regulations for UN3480 and UN3481 lithium-ion battery shipments, along with practical advice for ensuring safe transport. UN3481 applies to batteries packed with or contained in. These guidelines are intended as a tool to aid compliance with certain marking requirements for batteries and battery peripherals based on the applicable EU legislation. The guidelines look into requirements coming out of the Batteries Directive 2006/66/EC and Regulation (EU) 1103/2010 on capacity. This document is based on the provisions set out in the 2025-2026 Edition of the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air (Technical Instructions) and the 67th Edition (2026) of the IATA Dangerous Goods Regulations (DGR). Correct. These standards mandate that battery packs must be labeled with information about the battery chemistry, rated voltage, rated capacity, and warning signs regarding potential hazards such as overcharging, short - circuiting, and exposure to high temperatures. In the United States, the Federal.



Article Content

Cell Capacity and Pack Size

If there is a requirement to deliver a minimum battery pack capacity (eg Electric Vehicle) then you need to understand the variability in cell capacity and how that impacts pack configuration.

Meaning of Codes on Lithium Batteries

Lithium batteries are one of the most common components in our daily lives. They allow us to free ourselves from wires and use tools flexibly. Have you ever

Battery nomenclature explained

Primary batteries Battery numbering Examples of the IEC nomenclature are batteries coded R20, 4R25X, 4LR25-2, 6F22, 6P222/162, CR17345 and LR2616J. The letters and numbers in the code

Your 2025 Guide to Lithium Battery Labels

There are many rules and regulations in place when it comes to applying battery labels to packages containing lithium batteries for transport.

How to tell the letter and number shown on lithium-ion

How many types and specifications of batteries are there? In fact, it is hard to tell how many types there are, because each battery manufacturer has

How To Ship Batteries | UPS

A UPS guide to help you safely pack and ship many kinds of batteries including lithium metal, damaged or defective batteries and alkaline or certain nonspillable lead-acid batteries.

UN3481 vs UN1323: Meaning, Labels and Battery Shipping Rules

Learn the difference between UN3481 and UN1323, UN3481 label meaning, shipping requirements, and how UN3481 differs from UN3480 for lithium batteries.

Battery Transportation Requirements

Lithium-ion and lithium polymer cells and both non-rechargeable and rechargeable battery packs need to be managed to ensure safety during transportation.

List of battery sizes

This is a list of the sizes, shapes, and general characteristics of some common primary and secondary battery types in household, automotive and light industrial use. The complete nomenclature for a

Guidelines for packing & transporting of Lithium-ion Batteries

In assessing batteries as Yellow or Red, an assessment or evaluation shall be performed based on safety criteria from product manufacturer or by a technical expert with knowledge of the battery's

LITHIUM BATTERY GUIDE FOR SHIPPERS

The number of batteries in each package is limited to the minimum number required to power the piece of equipment, plus two spare sets, and the total net quantity (mass) of the lithium cells or batteries in

Airline Passengers and Batteries

Batteries Allowed in Airline Passenger Baggage in the US Based on US DOT regulations (49 CFR, Sec. 175.10). Transportation Security

Battery nomenclature

The letters and numbers in the code indicate the number of cells, cell chemistry, shape, dimensions, the number of parallel paths in the assembled battery and any modifying letters deemed necessary.

Guidelines on Portable Batteries and Battery Peripherals Marking ...

These guidelines are intended as a tool to aid compliance with certain marking requirements for batteries and battery peripherals based on the applicable EU legislation. The guidelines look into

2. Naming Conventions — foxBMS 2

2. Naming Conventions When working with battery systems, it is vital to use consistent wording. The naming conventions used throughout this documentation for the parts of a battery system are

Batteries Carried by Airline Passengers Frequently Asked Questions

Batteries Allowed in Airline Passenger Baggage in the US Based on US DOT regulations (49 CFR, Sec. 175.10). Transportation Security Administration (TSA) security, individual airline, and international

Interactive Guide to Shipping Lithium Batteries

If the Watt-hour rating isn't clearly marked on your battery case, and the information isn't included on a battery specification or Safety Data Sheet, you can simply determine the battery's Wh-rating by

How to Ship Wet, Dry, and Lithium Batteries | FedEx

Learn how to ship your batteries with our guide. Discover how to identify your wet or dry battery and how to secure them for shipping. Our guidelines for shipping lithium batteries will help make sure you

Global RCG

Maximum number of batteries /cells per package is those necessary to power the equipment plus 2 spare sets. A set of cells or batteries is the number of individual cells or batteries that are required to

What are the requirements for battery pack labeling on a battery pack ...

As a supplier of Battery Pack Assembly Lines, I've witnessed firsthand the importance of proper battery pack labeling on the production line. In this blog post, I'll delve into the requirements for battery pack

Battery Guidance Document

E.13 Under Packing Instructions 966 and 969, it states that “The maximum number of batteries in each package must not exceed the minimum number required to power the equipment, plus two spare sets.

Guidelines on Portable Batteries Marking Requirements

- Portable rechargeable batteries are required to be marked with their capacity from 30 May 2012 (Regulation (EU) 1103/2010). The producer placing batteries on the market is responsible for fulfilling

A Complete Guide to UN3480 & UN3481 Lithium Ion Battery Shipping ...

This guide explains UN3480 (standalone batteries) and UN3481 (batteries with/in equipment), covering packaging, documentation, labeling, risks, and compliance for safe lithium-ion

FAQs: Shipping Lithium Batteries Safely & Legally

This guide covers the most commonly asked questions (FAQs) surrounding the topic of shipping lithium batteries. Make sure your business is

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