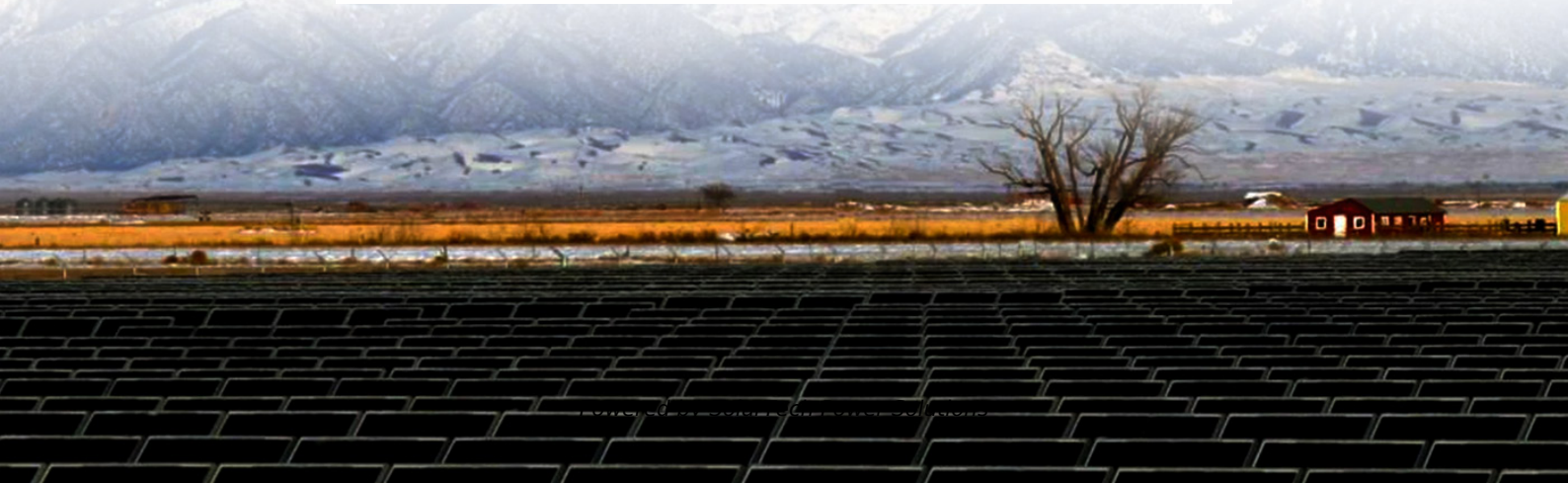


## SolarTech Power Solutions

# What is the voltage of the cylindrical lithium battery of Apia



## Overview

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How many Li-ion cylindrical battery cells are there?

This paper investigates 19 Li-ion cylindrical battery cells from four cell manufacturers in four formats (18650, 20700, 21700, and 4680). We aim to systematically capture the design features, such as tab design and quality parameters, such as manufacturing tolerances and generically describe cylindrical cells.

What is a cylindrical lithium battery?

The cylindrical battery shell has high voltage resistance and will not cause swelling of square or soft-packaged batteries during use. The cylindrical lithium battery cell size is larger. When the current is discharged, the internal temperature of the winding core is relatively high.

How do you identify a cylindrical lithium-ion battery?

For instance, “65” represents a height of 65mm. Fifth Digit: The fifth digit indicates the cylindrical shape of the cell. Typically, it’s “0” for cylindrical cells. By following this naming convention, we can easily identify the size and shape of cylindrical lithium-ion battery cells.

What are the naming rules for lithium ion batteries?

The naming rules for cylindrical lithium-ion battery cells follows a standardized format based on the cell’s dimensions, and usually represented by a five-digit code, where each digit provides specific information about the cell’s dimensions. Here’s a breakdown of the representation: What does 18650 means?

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Why are cylindrical battery cells so popular?

In the last 3 years, cylindrical cells have gained strong relevance and

popularity among automotive manufacturers, mainly driven by innovative cell designs, such as the Tesla tabless design. This paper investigates 19 Li-ion cylindrical battery cells from four cell manufacturers in four formats (18650, 20700, 21700, and 4680).

How to design cylindrical Li-ion battery cells?

A generic overview of designing cylindrical Li-ion battery cells. Function 1: Two types of jelly roll designs can be distinguished: With tabs and tabless. Jelly rolls with tabs can be realized with a single tab (Design A) or several tabs in a multi-tab design (Design B).

## What is the voltage of the cylindrical lithium battery of Apia

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