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## Overview

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Lithium batteries (lithium polymer batteries) have become a viable option for energy storage in renewable energy systems due to their high energy density, fast charging capabilities, and long life. What are the disadvantages of a lithium ion battery?

Nothing in life is perfect, and LIBs and cells come with some drawbacks. The disadvantages of the Li-ion battery include: 3.3.1. Protection/battery management system required Lithium-ion cells and batteries are not as robust as some other rechargeable technologies. They necessitate protection against overcharging and excessive discharge.

Is it safe to store a lithium battery outdoors?

Fortunately, modern technology allows for safe outdoor storage of lithium batteries. This does lead to a separate consideration in the form of IP (Ingress Protection) ratings. In a nutshell, this rating indicates the level of protection your battery receives from foreign objects both solid and liquid.

How much energy can a Li-ion battery store?

Utilities around the world have ramped up their storage capabilities using lithium-ion supersized batteries, huge packs which can store anywhere between 100 to 800 megawatts (MW) of energy. California based Moss Landing's energy storage facility is reportedly the world's largest, with a total capacity of 750 MW/3 000 MWh.

Why should you use a lithium ion battery (LIB)?

The well-designed LIBs such as those from silicon light works include safety circuits that protect cells from both high- and low-voltage conditions. However, inherent self-discharge within the cells can lead to low-voltage conditions if the cells are left uncharged for long periods.

How much power does a lithium ion battery produce?

Many of the gains made by these batteries are driven by the automotive industry's race to build smaller, cheaper, and more powerful li-ion batteries for electric cars. The power produced by each lithium-ion cell is about 3,6 volts (V).

Why is lithium ion a popular battery?

The battery of lithium ion is popular because of its strong charge density and output voltage.

## Advantages of lithium batteries for energy storage

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