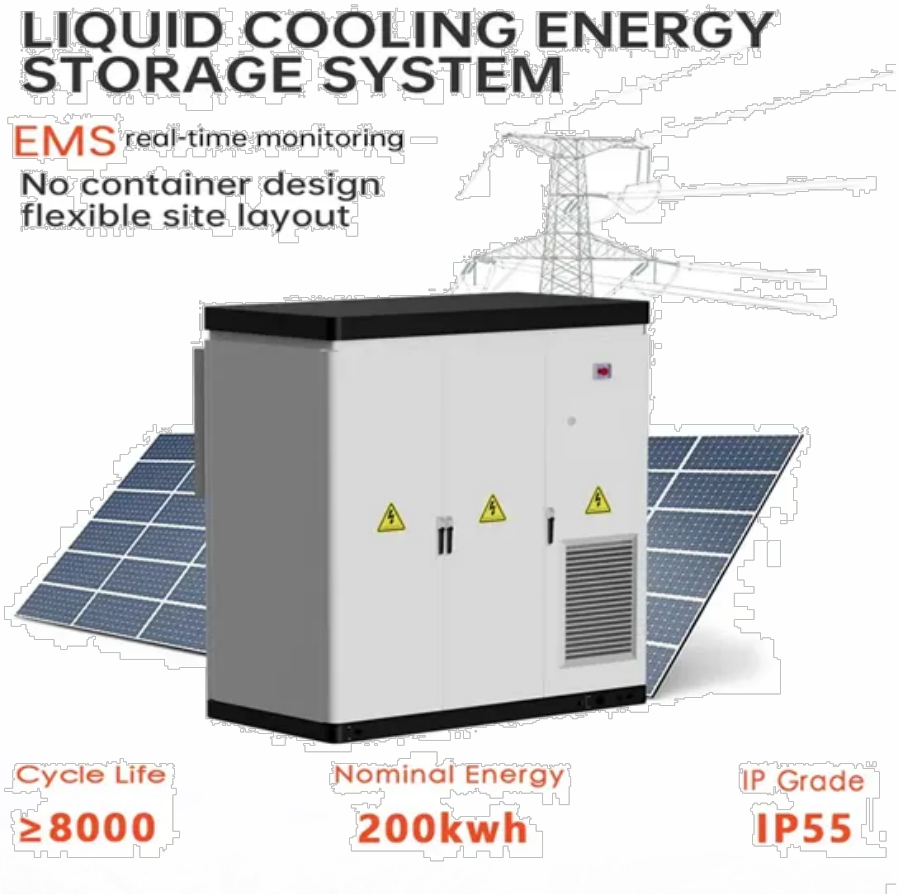
Ground Compressed Air Energy Storage Power Station



Overview

What is a compressed air energy storage station?

"The compressed-air energy storage station offers large capacity, long storage time (over 4 hours), and efficient response, making it comparable to small and medium-sized pumped storage power plants," Liu Yong, Secretary General of Energy Storage Application Branch of China Industrial Association of Power Sources told the Global Times on Wednesday.

What is a 300 MW energy storage plant?

The $207.8 million energy storage power station has a capacity of 300 MW/1,800 MWh and uses an underground salt cave. Chinese developer ZCGN has completed the construction of a 300 MW compressed air energy storage (CAES) facility in Feicheng, China's Shandong province. The company said the storage plant is the world's largest CAES system to date.

What is a compressed air energy storage plant?

Schematic diagram of a compressed air energy storage (CAES) Plant. Air is compressed inside a cavern to store the energy, then expanded to release the energy at a convenient time.

How much power does a new energy storage facility provide?

The $207.8 million facility boasts an energy storage capacity of 300 MW/1,800 MWh and occupies an area of approximately 100,000 m2. According to ZCGN, it is capable of providing uninterrupted power discharge for up to six hours, ensuring power supplies to between 200,000 and 300,000 local homes during peak consumption periods.

What is energy storage No 1?

The “Energy Storage No. 1” project utilizes the caverns of an abandoned salt mine, reaching up to 600 meters of depth, as its gas storage facility. This allows for a gas storage volume of nearly 700,000 cubic meters, translating

into a single unit power output of up to 300 MW and a storage capacity of 1,500 MWh.

How much energy does a gas storage system produce?

This allows for a gas storage volume of nearly 700,000 cubic meters, translating into a single unit power output of up to 300 MW and a storage capacity of 1,500 MWh. The system conversion efficiency is about 70%. It can store energy for eight hours and release energy for five hours every day, and generate about 500 GWh of electricity annually.

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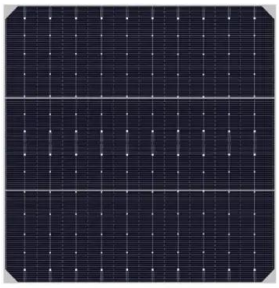

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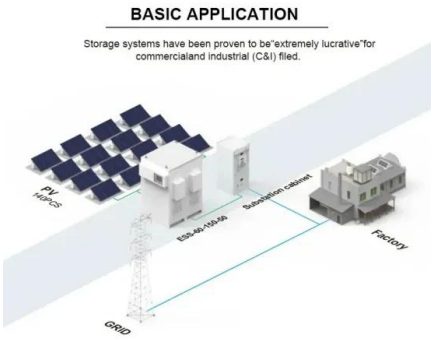

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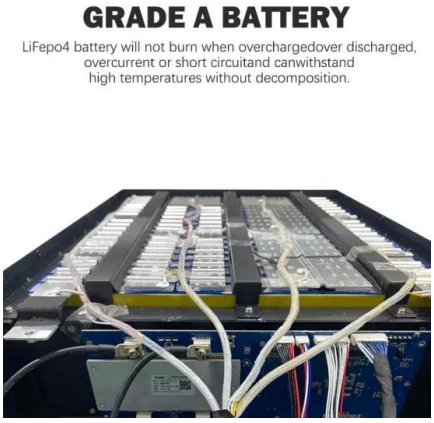

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