

SolarInnovate Energy Solutions

M3p battery energy storage





Overview

What is a M3P battery?

The M3P battery is a battery developed by CATL (Contemporary Amperex Technology Co., Ltd.) based on a new material system. Its energy density is higher than that of lithium iron phosphate (LFP) and its cost is better than that of ternary batteries, addressing two major long-term concerns of LFP and ternary batteries.

What is the energy density of M3P battery?

The energy density of the M3P battery will be about 15% higher than the existing Lithium iron phosphate battery, which is about 210 kWh/kg, which will increase the endurance mileage of the Model 3 produced by the Shanghai factory by 10%. At present, the domestic model 3 is equipped with lithium iron phosphate battery supplied by CATL.

What are the advantages of M3P battery based on lithium iron phosphate?

At the same time as the energy density advantage, the manufacturing cost of the M3P battery is close to the lithium iron phosphate, about 0.8-0.85RMB/WH. In addition, the M3P battery based on the phosphate system also inherits the characteristics of high lithium iron phosphate battery safety and long life.

Is MP3 a lithium phosphate battery?

While the precise chemistry of the new batteries isn't known, the new M3P battery is an improved version of the LFP chemistry where the iron (F) is replaced with a mix of magnesium, zinc, and aluminium. So the MP3 is still a lithium phosphate battery.

What is CATL M3P battery chemistry?

Last summer, we told our readers about a new battery chemistry from CATL, the world's largest maker of lithium-ion batteries. Called M3P, the new batteries are said to be up to 15% more energy dense than LFP batteries,



which would allow cars like the Tesla Model 3 to have a range in excess of 400 miles.

Is the M3P battery a lithium manganese iron phosphate (Lmfp) battery?

There are various speculations in the market suggesting that the M3P battery is a lithium manganese iron phosphate (LMFP) battery, but the reality is more than that. CATL has mentioned in its research that, to be precise, the M3P battery is not LMFP but includes other metallic elements.



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