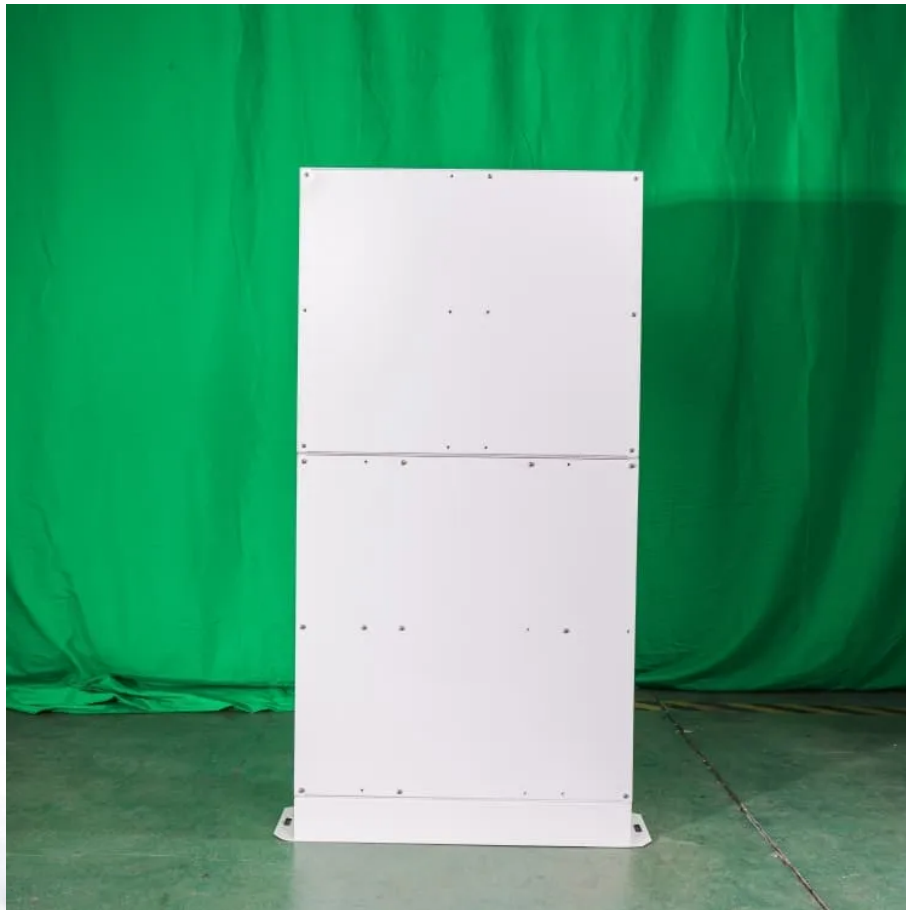


Design of industrial and commercial energy storage vehicle





Overview

What are the benefits of a designed vehicle?

Moreover, the energy storage ability of the designed vehicle enables its refrigeration system to continue running continuously even when the vehicle is switched off. The designed vehicle reduces carbon and CO₂ emissions by at least 36.3%, thereby mitigating urban air pollution.

How can a logistics vehicle reduce the energy consumption?

The shortfall can be supplemented using the electricity stored in the energy storage devices of other logistics vehicles. In the designed vehicle, the refrigeration compressor is powered by solar energy and stored battery power rather than diesel; thus, the diesel consumption of the vehicle is reduced. 4.2. Cooling Load Estimation 4.2.1.

Are solar-powered refrigerated logistics vehicles a viable alternative?

Solar-powered refrigerated logistics vehicles are gradually becoming a viable alternative to traditional diesel refrigerated trucks. For example, Sono Motors developed a solar-powered refrigerated vehicle that can generate at least 50% of its energy requirements; this vehicle reduces operating costs and has high efficiency.

Can solar-powered vehicles meet the demand for cold chain logistics?

To meet the demand for cold chain logistics through green transportation, this study designed a solar-powered vehicle with energy storage ability for cold chain logistics operations. The designed vehicle has solar panels on its roof that power the refrigeration system of the vehicle during transportation.



Design of industrial and commercial energy storage vehicle

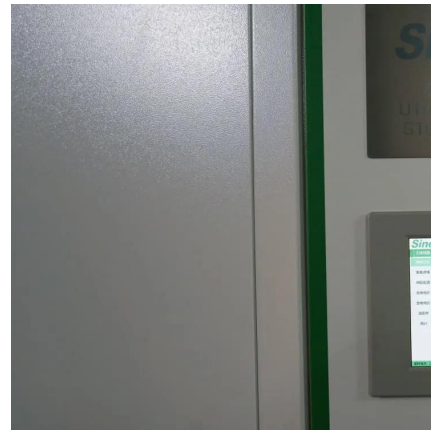


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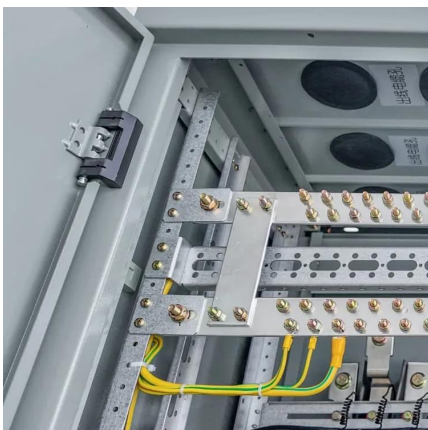
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