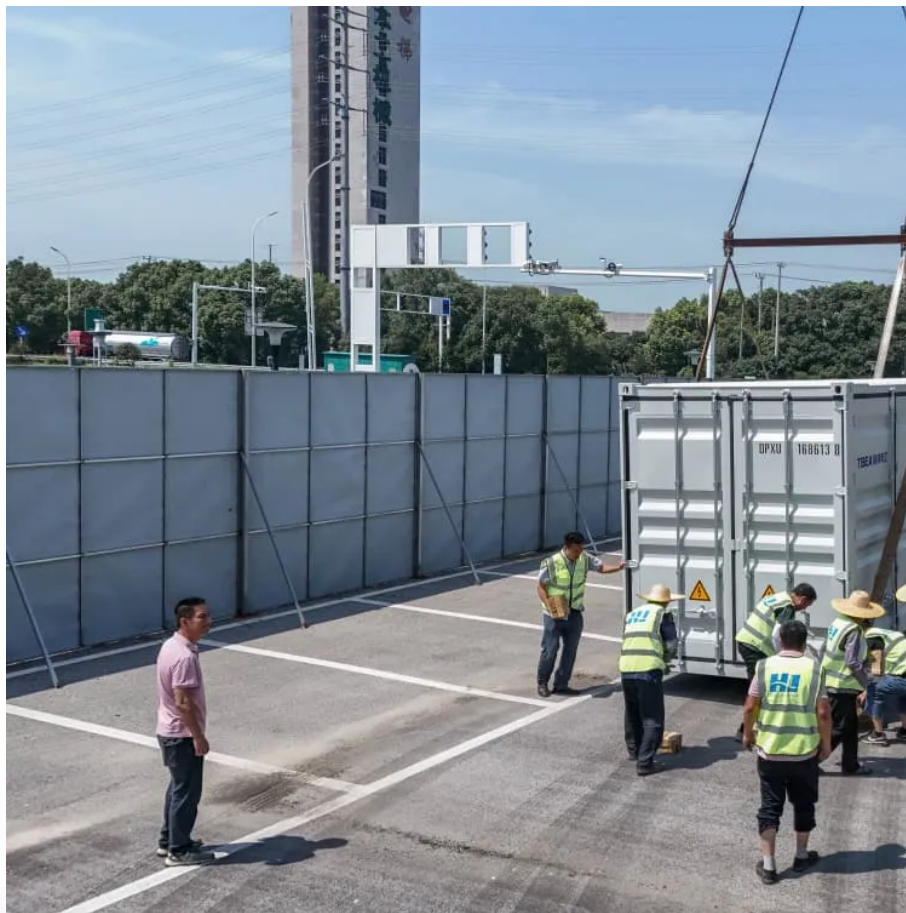


Supercapacitor and traditional capacitor prices





Overview

How much does a supercapacitor cost?

The costs vary significantly across different supercapacitor components. While activated carbon is a relatively inexpensive electrode material (\$5-20/kg) , advanced alternatives like carbon nanotubes (\$100-500/kg), graphene (\$100-1000/kg), and metal oxides (\$50-200/kg) offer improved performance but at a higher cost.

Why are supercapacitors more expensive than batteries?

High capital cost and low energy density of supercapacitors make the unit cost of energy stored (kWh) more expensive than alternatives such as batteries. Their attributes make them attractive for uses in which frequent small charges/discharges are required (e.g., ensuring power quality or providing frequency regulation).

What are supercapacitors used for?

They have more capacitance than conventional capacitors and store more energy. Supercapacitors can be of various types, such as double-layer, pseudo, and hybrid capacitors. They can be used for different end-user industries, such as consumer electronics, energy and utilities, industrial, and automotive.

Are super capacitors better than batteries?

Batteries can store substantial energy in small volumes but are limited in instantaneous power output capabilities. Supercapacitors occupy an intermediate niche, bridging the conventional capacitors and battery domains. They provide higher energy densities than conventional capacitors while retaining exceptionally high-power densities.



Supercapacitor and traditional capacitor prices

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