



Supercapacitor price characteristics





Overview

Spoiler alert: prices have dropped like a Tesla's 0-60 mph time. In 2025, we're seeing jaw-dropping figures like \$0.056/Wh for supercapacitor cells [4] and \$0.426/Wh for full systems [8]. But wait—there's more to this story than just numbers. Let's cut to the chase.

Spoiler alert: prices have dropped like a Tesla's 0-60 mph time. In 2025, we're seeing jaw-dropping figures like \$0.056/Wh for supercapacitor cells [4] and \$0.426/Wh for full systems [8]. But wait—there's more to this story than just numbers. Let's cut to the chase.

While lithium-ion batteries dominate headlines, supercapacitor cost per kWh has emerged as a critical metric for industries demanding rapid charge-discharge cycles and extreme durability. In 2023, the average supercapacitor energy storage system ranged between \$3,000-\$5,000 per kWh - significantly.

The costs of supercapacitors are tabulated in this data-file, with a typical system storing 15-seconds of electricity, for a capex cost around \$10,000/kWh of energy but just \$40/kW of power. Hence, for short-duration, but very frequent and fast-acting voltage regulation, supercapacitors may be.

The global supercapacitor market is projected to grow from USD 1.35 billion in 2025 to USD 2.84 billion by 2030, at a CAGR of 16.1%. Growth is driven by adoption of automotive, consumer electronics, renewable energy, and industrial automation. With high power density, fast charge-discharge, and.

The Supercapacitors Market Report is Segmented by Configuration (Type) (Electric Double-Layer Capacitors (EDLC), Pseudo Capacitors, and Hybrid Supercapacitors), Form Factor (Cell, Module, and Pack), Mounting Type (Discrete Components) (Surface-Mount, Radial Leaded, Snap-In, and More), End-User.

Supercapacitors Market - (By Type (Volume in Units): Electric Double-Layer Capacitors (EDLCs), Pseudocapacitors, Hybrid Capacitors; By Capacitance (Volume in Units): Low (< 10 Farads), Medium (10 to 100 Farads), High (Above 100 Farads); By Application (Volume in Units): Automotive, Consumer.

Supercapacitors, also known as ultracapacitors or double-layer capacitors, are



electronic devices that are used to store particularly large amounts of electrical charge. They are high-power density energy storage systems and play a critical role in several industries as emergency power backup. How big is the supercapacitor market?

The Supercapacitor Market size was valued at USD 3.71 billion in 2024 and is expected to reach USD 4.95 billion by 2033, growing at a compound annual growth rate (CAGR) of 3.3% from 2025 to 2033. As energy storage material applied in many industries, the supercapacitor market has exhibited significant development in the global market.

How much does a supercapacitor cost?

The capex costs of supercapacitors are contrasted with the costs of lithium ion batteries and the costs of flywheels in the chart below. A typical supercapacitor stores about 15 seconds of energy, for a capex cost of \$10,000/kWh, but just \$40/kW of power.

What are the different types of supercapacitors market?

On the basis of application, the market is categorized into automotive, consumer electronics, energy, industrial, healthcare, and others. The automotive sector held the largest supercapacitors market share in 2023, driven by the increasing demand for high-performance energy storage systems.

What are supercapacitors & how do they work?

Supercapacitors (or ultracapacitors) utilize high surface area electrode materials and thin electrolytic dielectrics to achieve high capacitance values. 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.



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[Supercapacitor Market Size, Growth, Industry Report \[2033\]](#)

Supercapacitors or ultracapacitors are characterized by high power density, fast charge-discharge and cycling performance, long cycle life and have the potential to be applied ...

Supercapacitor Cost per kWh: Breaking Down the Economics of ...

While lithium-ion batteries dominate headlines, supercapacitor cost per kWh has emerged as a critical metric for industries demanding rapid charge-discharge cycles and extreme durability.



Supercapacitor Energy Storage System Unit Price: What You ...

If you're researching energy storage for renewables, electric vehicles, or industrial applications, you've likely asked: "How much does a supercapacitor energy storage system ...

[The Global Supercapacitors Market 2026-2036](#)

Success in this dynamic market requires understanding the nuanced trade-offs between energy density, power density, cost, and



application requirements--factors that will ultimately ...



Supercapacitor Market Size, Share, Trends and Growth Analysis ...

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Supercapacitors: the economics?

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Supercapacitors Market Size, Share , Global Report [2024-2032]

Supercapacitors, also known as ultracapacitors or double-layer capacitors, are electronic devices that are used to store particularly large amounts of electrical charge.



[Supercapacitor Market - Size, Share, Trends, Analysis](#)

Supercapacitors are energy storage devices that store and release energy using electrostatic charge rather than chemical reactions, unlike conventional batteries. They consist of two ...



Supercapacitor Market Size, Share, Trends and Growth Analysis ...

Supercapacitors below 100 F are widely used in devices needing rapid energy discharge with minimal maintenance. The 100-1,000 F range offers an optimal balance of energy density, ...

Supercapacitors Market Size to Hit USD 14.74 Billion by 2034

The global supercapacitors market size is projected to hit around USD 14.74 billion by 2034, increasing from USD 3.45 billion in 2025, with a CAGR of 17.50%.



[Supercapacitor Market Size, Growth & Industry Trends , 2025](#)

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- ✓ LIQUID/AIR COOLING
- ✓ INTELLIGENT INTEGRATION
- ✓ PROTECTION IP54/IP55
- ✓ BATTERY /6000 CYCLES



[Supercapacitor Market - Size, Share, Trends, ...](#)

Supercapacitors are energy storage devices that store and release energy using electrostatic charge rather than chemical reactions, unlike ...



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