CAPACITOR

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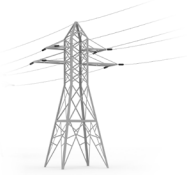
TECHNOLOGY BRIEF

HIGH-ENERGY NANOPLEX CAPACITORS FOR FUSION, POWER GRID, AND ELECTRIC VEHICLES



HIGH-ENERGY NANOPLEX CAPACITORS FOR FUSION, POWER GRID, AND ELECTRIC VEHICLES

NANOPLEX™

What is a High-Energy Capacitor?

A capacitor is a storage unit for electrical charge, holding and releasing energy into electronic circuits. Unlike batteries or wall plugs, which function at a specified voltage, capacitors canstore power from multiple sources and regulate and adjust the power to release energy in large or small bursts to accomplish different tasks.

ENERGY

STORAGE & CONTROL

Capacitors store energy and control how much energy is distributed from a power source. They can deliver electrical energy faster than batteries to power an EV motor, drive magnets, or produce fusion power with a laser.

VOLTAGE

DELIVERY & REGULATION

Capacitors help control voltage in electronic circuits. This is essential to ensuring stable and reliable delivery of power to household and industrial consumers, maintaining high-power line transmissions, and integrating renewable energy into the US power grid.

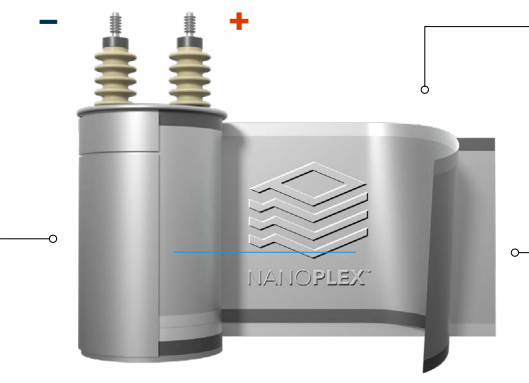
PULSED

POWER DELIVERY

Certain applications require large bursts of energy, which high-energy capacitors can provide. This is particularly useful for driving electric vehicles, powering fusion energy, launching planes from aircraft carriers (EMALS), and medical applications, such as defibrillators.

Connection Terminals
- Power connectors for power grid, fusion systems, electric vehicles, and EMALS

Capacitor Housing
- Multiple form factors
- Environmental protections
- Emissions controls



Internet of Things Controls
- Provides analytics data for AI
- Centralized management
- Predictive maintenance

NanoPlex Capacitor Films
- High-energy storage
- High-temperature tolerance
- Longer operational lifetime

FOUR FILM FACTS

>70%
OF CAPACITOR FILMS "MADE IN CHINA"

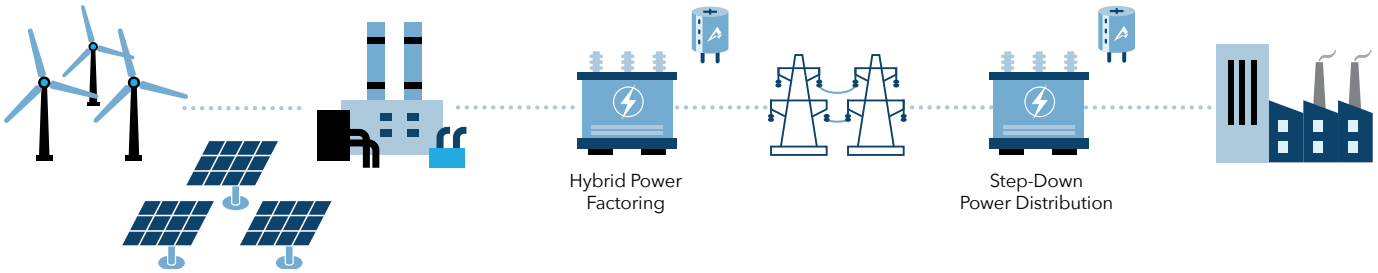
EVs
WORLDWIDE REQUIRE MILLIONS OF CAPACITOR FILMS

$400B
MARKET FOR US MANUFACTURING

FUSION
EACH SYSTEM REQUIRES MILLIONS OF CAPACITOR FILMS

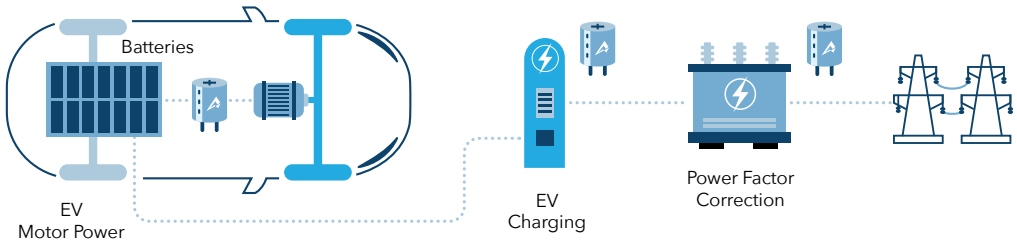
Power Grid – Transmission, Distribution, and Hybrid Power Factoring

High-energy capacitors are used to provide hybrid power factoring. They ingrate power generated by multiple power sources, step them up to a single high-voltage power source (up to 1000 Kilovolts) for long-distance power transition, and then step that power down to 110V and 220V used by most consumers.



Electric Vehicle Acceleration and Charging

High-energy capacitors are used in ignite the fusion power process for magnetic confinement (tokamaks and stellarators), Inertial confinement (laser), and magneto-inertia (hybrid Laser/magnetic) fusion reactors for to power-producing process.



Fusion Energy Power Generation

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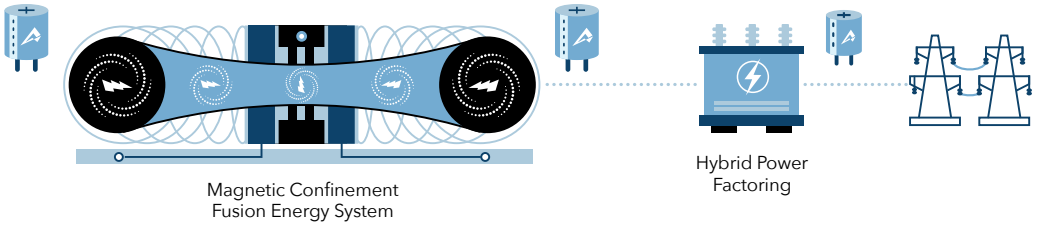

FIVE PEAK FACTS

$80M PRIVATE CAPITAL INVESTED IN OHIO

20 GLOBAL PATENTS PROTECTING NANOPLEX

75K SQ FT US MANUFACTURING SPACE TODAY

NANOPLEX IS THE NEXT-GEN US CAPACITOR TECH

1000s OF NEW US MANUFACTURING JOBS

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