Flywheel energy storage motor patent

The invention concerns a key component of a flywheel energy storage system, a device that functions as a motor and a generator, referred to herein as a homopolar motor.

The present disclosure relates generally to flywheel energy storage in a power system, and more particularly to flywheel energy storage where an electric motor is provided for charging a flywheel.

The invention relates to a magnetic suspension flywheel energy storage system using a liquid cooling heat dissipation technology, which comprises a system shell, a motor rotor, a magnetic ...

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The flywheel energy storage system is connected to the power grid without needing to use a power electronic device, so that necessary voltage and frequency support can be provided for ...

This article proposed a compact and highly efficient flywheel energy storage system (FESS). Single coreless stator and double rotor structures are used to eliminate the idling loss caused ...

Energy can be stored through various forms, such as ultra-capacitors, electrochemical batteries, kinetic flywheels, hydro-electric power or compressed air. Their comparison in terms of specific ...

A flywheel energy storage, electric vehicle technology, applied in the direction of the magnetic attraction or thrust holding device, electrical components, etc., can solve the problems of ...

Flywheel energy storage systems (FESSs) store mechanical energy in a rotating flywheel that convert into electrical energy by means of an electrical machine and vice versa ...

A flywheel energy storage system for a vehicle, comprising a first shaft, a second shaft operatively coupled to the first shaft and to the vehicle"s drivetrain, a flywheel operatively coupled to the ...

During periods of high demand, the inertial energy stored in the flywheel motor generator is utilized (67, 68) to add energy to the DC bus to provide additional current to the three phase ...

The invention belongs to the technical field of flywheel energy storage motors, generators and new energy, and relates to a generator of a magnetic suspension flywheel energy storage motor.

The flywheel system is constructed using a high strength steel wheel for kinetic energy storage, high efficiency magnetic bearings configured with dual thrust acting permanent magnet ...

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A flywheel energy storage system has been developed for industrial applications. The flywheel based storage system is targeted for some applications where the characteristics of flywheels ...

Meeting today"s industrial and commercial power protection challenges. Technological advances in virtually every field of human endeavour are bringing unprecedented demands for clean, ...

Abstract - For efficient utilization of available renewable energy in the form of solar, wind, geo-thermal, etc. it is imperative that a reliable energy storage system is incorporated, so that ...

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