

# PRINCIPLE OF PULSE ENERGY STORAGE CAPACITOR MAGNETIZING MACHINE



How does a capacitor work? Rise the power supply voltage, and transform to DC through a rectifier to charge the capacitor. The high-voltage direct current energy stored in the capacitor, through control SCR, high-voltage energy discharges the magnetizing coil to generate a strong magnetic field to magnetize the magnet saturation.



What is a capacitor-based magnet system? The goal of this project is to develop a capacitor-based system capable of creating magnets using much lower levels of stored energy, resulting in a safer in-house production process. Producing custom magnets will transfer important design decisions to individual researchers, enabling more innovative robotics systems.



Why do we need a capacitor-discharge system? In order to achieve magnetic fields that are strong enough to induce magnetization in materials like NdFeB, high peak magnetizing current levels are needed. Capacitor-discharge systems are generally used to provide these high peak currents in an impulse magnetizing process.



What are the goals of a magnetizing machine? Another important goal for creating the magnetizing machine is to magnetize magnets much more safely than with machines that rely on high-energy sources. The amount of energy that the magnetizer stores for each impulse will be one indication of the level of safety of the machine.



Can a capacitor make permanent magnets? In the past, creating permanent magnets in labs involved unsafe high energy sources, such as arrays of lead-acid batteries. The goal of this project is to develop a capacitor-based system capable of creating magnets using much lower levels of stored energy, resulting in a safer in-house production process.

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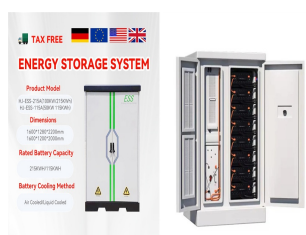
What is a capacitor-discharge system? Capacitor-discharge systems are generally used to provide these high peak currents in an impulse magnetizing process. Designing an impulse magnetizing system that can magnetize magnets to fulfill desired properties can be difficult due to saturation and eddy current effects that take place within the material being magnetized.



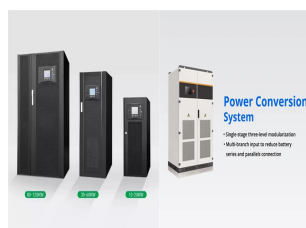
Magnet principle: VAT,???, ???



Dexinmag company is a professional manufacturer of remagnetizing machines and demagnetizer machines. Dexinmag series Pulse Magnetizer Machine can meet the magnetizing requirements of all permanent magnet materials so far ???



1.1. HES based on pulse transformer charging. In the fields of electrical discipline, power electronics and pulsed power technology, the common used modes of energy transferring and energy storage include mechanical energy storage ???



Key learnings: Capacitor Definition: A capacitor is defined as a device with two parallel plates separated by a dielectric, used to store electrical energy.; Working Principle of a Capacitor: A capacitor accumulates charge on ???

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The peak value of pulse current is extremely high when the capacitor of the magnetizer is working, and the performance of the capacitor to withstand the impact currently is very high. The structure of the magnetizing machine is ???



Rise the power supply voltage, and transform to DC through a rectifier to charge the capacitor. The high-voltage direct current energy stored in the capacitor, through control SCR, high-voltage energy discharges the magnetizing coil to ???



VAT-series high voltage pulse magnetizer is a kind of high performance pulse magnetizing apparatus. Its working principle is: the line frequency alternating current passing ???



This paper proposes a modified bidirectional isolated DC/DC converter with hybrid control, which can be applied to bidirectional power transfer between energy storage systems and DC microgrids. Batteries are usually ???



Magnetizer is a device to realize product magnetization. Its types include capacitive pulse magnetizer, pulse magnetizer without energy storage, and constant current magnetizer. The ???

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The traditional magnetizing machine-specific pulse energy-storage capacitor is replaced by the one made up of electrolytic capacitors connecting in series and parallel mixed, which lower the ???



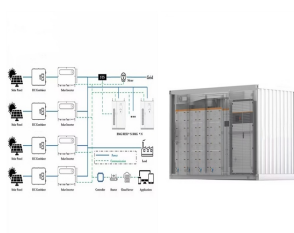
The working principle of magnetizing machine (magnetizing power supply): The capacitor is first charged with a DC high voltage voltage (ie, energy storage), and then discharged through a ???



High Voltage Energy Storage Magnetizing Machine Pulse Capacitor  
Energy storage pulse capacitors are able to charge over a longer period of time and discharge over a shorter period of time, resulting in a large ???

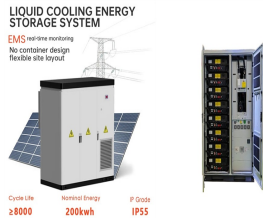


Our world class magnetizers, when used with proper fixturing, are capable of saturating virtually all sizes and configurations of magnetic assemblies  
The selection of a magnetizing system begins with an analysis of the production ???



Finally, calculate the magnetization current. Based on the current and the voltage of the magnetizing machine, determine the energy storage capacitor capacity of the magnetizing machine. The basic principle of magnetization is to place the ???

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DX Pulse Capacitor Discharge Magnetizer. used to optimize circuit design, energy storage capacitors for high voltage oil-immersed power long-life capacitor. Rigorous testing means power, long working life, strict ???