

# The Working Principle and Main Parameters of the Magnetizer

## What is magnetization?

Magnetization is to magnetize a magnetic substance or to increase the magnetic properties of a magnet having insufficient magnetic properties.

## The working principle of magnetizing machine (magnetizing power supply):

The capacitor is first charged with a DC high voltage (i.e., stored energy) and then discharged through a coil (magnetizing fixture) with very small resistance. The peak value of the discharge pulse current is very high, reaching tens of thousands of amps. This current pulse creates a powerful magnetic field within the magnetizing fixture that permanently magnetizes the magnetic material placed in the magnetizing fixture. When the magnetizer capacitor is working, the peak value of the pulse current is extremely high, and the magnetization frequency is also relatively high, and the performance of the capacitor to withstand the inrush current is very high.

The magnetizer can quickly saturate the magnetizing equipment and is dedicated to magnetizing various magnetic materials. The magnetizer is a device that realizes magnetization of the product. The types include capacitive pulse magnetizers, non-energy pulsed magnetizers, and constant current magnetizers.

Main parameters of magnetizing machine (magnetizing power supply)

1. Power supply: AC 220V±10% 380V±10% 50Hz-60Hz
2. Working environment: temperature 0°C -40°C
3. Working magnetization voltage: 0V-600V; 0V-800V; 0V-1200V; 0V-1500V, 0-2500V
4. Magnetizing current: instant 3000A-30000A
5. Capacitance: 200μf-30000μf, capacitors are used according to specific conditions

## Magnetizing machine (magnetizing power supply) application areas:

Magnetic materials: ferrite, neodymium iron boron, aluminum nickel cobalt, samarium cobalt, plastic magnetic

Motor: various small motors, DC motors, synchronous motors, electro-acoustic industry: various speakers, microphones, telephones, buzzer generators: car ignition, charging, tachometer, pulse generator instrument categories: ammeter, fuel gauge, tachometer, electricity meter electronic category: CD-R suction cup, printer, slot machine, mahjong machine

Fans: various axial fans, automotive cooling fans, computer CPU fans Metals: machinery manufacturing, hardware tools, mold processing

Other: compass, refrigerator door seal, stationery, toys, health supplies, packaging supplies