# Magnetreaters®
# Model 990A
# & Model 990C

Features

- Precision Stabilization
- High Resolution
- Pulse Rate and Amplitude Controls
- Bench or Rack Mount Configurations
- Continuously Variable Output Power (0 to 600 VDC, 200 Amps Maximum with Low Line Demand)
- IEEE-488 Option
- Three Modes of Operation Include: Manual, Gaussmeter, or Computer Control
- Complete Magnet Processing, in One Fixture, When Interfaced with a Magnetizer and Gaussmeter
- A Wide Range of Standard Treating Coils and Fixtures are Available
- Custom Treating Coils are Designed for Specific Applications

**Description**

The Model 990 Series Magnetreaters® are highly accurate, pulse type, ringing demagnetizers (also called treaters) for the controlled stabilization of permanent magnets and permanent magnet assemblies. Regardless of line voltage stability they provide a controlled output through continuous pulse amplitude regulation. Treating voltage is variable from 0 to 600 VDC. Additional energy can be added to the Model 990 Series by interconnecting a Model 992 Energy Booster. The energy level is increased from 18 to 36 watt-seconds. With this option treating coils will produce higher demagnetizing fields and lower ringing frequencies, which can provide greater field penetration in some applications.

**Model 990A**

The Model 990A Magnetreater® is designed for manual control of treating or it can be equipped with the optional IEEE-488 interface module and D/A reference generator module for computer control. The unit has two output controls for manually adjusting the treating pulse output, a pulse rate control, and a series of front panel lights to indicate system status.

**IEEE-488 Interface**

This option allows the Magnetreater to be controlled by an external computer. A Gaussmeter with a parallel BCD output is connected to the "Talk" port in the Magnetreater®. A 24 pin IEEE-488 connector is located on the rear panel of the 990, along with the BUS address switch.

**Model 990C**

The 990C Magnetreater® has all the functions of the Model 990A, with the addition of the dual slope and automatic control circuitry. The dual slope control enables the output to be gradually increased at one or two different rates from an initial starting level. Front panel controls adjust the rate of increase for both the fast and slow slopes. A reset control allows the operator to return the output to the initial starting level upon completion of a treat cycle. The automatic control utilizes the analog output from the Model 912 Gaussmeter or 912T Teslameter to provide a closed loop, automatic treating system. A digital front panel meter is used to adjust the desired treat level as a percentage of full scale and to display the magnetic field level of the magnet being processed.

**Specifications**

**Model 990A & 990C**

**Energy Storage:**
18 watt-seconds

**Treating Power:**
200 Amps max. 20 VA to 80,000 VA (600 VDC)

**Pulse Rate:**
50 to 200 pulses per minute

**Resolution:**
0.1% maximum

**Operating Temperature:**
0°C to +40°C, (+32°F to 104°F)

**Storage Temperature:**
-20°C to +85°C, (-8°F to 185°F)

**Power Requirements:**
(Specify at time of order)
120 VAC, 50/60Hz, 3 Amp average
220 VAC, 50/60Hz, 1.5 Amp average

**Rack Mount:**
Available as an option

**Dimensions:**
Weight: 42 lb (19.0 kg)
Width: 19.0 in (48.3 cm)
Height: 7.0 in (17.8 cm)
Depth: 15.5 in (39.4 cm)

**Model 992 Energy Booster**
(not shown)

**Energy Storage:**
18 watt-seconds (expands 990A or C to 36 watt-seconds)

**Dimensions:**
(Bench top unit)
Weight: 9 lb (4 kg)
Width: 8.5 in (21.0 cm)
Height: 7.0 in (17.8 cm)
Depth: 14.5 in. (35.6 cm)

**Dimensions:**
(Rack mount unit)
Weight: 15 lb (6.8 kg)
Width: 19.0 in (48.3 cm)
Height: 7.0 in (17.8 cm)
Depth: 15.5 in (39.4 cm)