

Order Code : 20213547.3.4

Name : Magnetic hysteresis loop and magnetisation curve apparatus



Specifications:

Magnetic hysteresis loop and magnetization curve present the basic magnetic characteristics of magnetic materials. A large number of ferromagnetic materials with various properties have been applied in industry, transportation, communications, electricity and electronics, and other fields.

This apparatus is designed with the following features:

1. Use of a high-precision digital Tesla meter for high measurement accuracy.
2. Demagnetizing process at the time of measuring DC magnetic properties of materials.
3. Measurement of magnetic field intensity distribution in a gap.
4. Three different magnetic materials provided as samples.

Experimental Contents

1. Measure magnetic induction intensity of residual magnetism in sample with Teslameter; acquire the relationship between magnetic induction intensity B and position X of the sample; and determine the range of uniform magnetic field in X direction.
2. Learn to demagnetize a magnetic sample and measure the initial magnetization curve.
3. At magnetic saturation, conduct magnetic exercise to the sample, and measure magnetic hysteresis loop.
4. Learn to apply Ampere's circuit law in magnetic measurement.

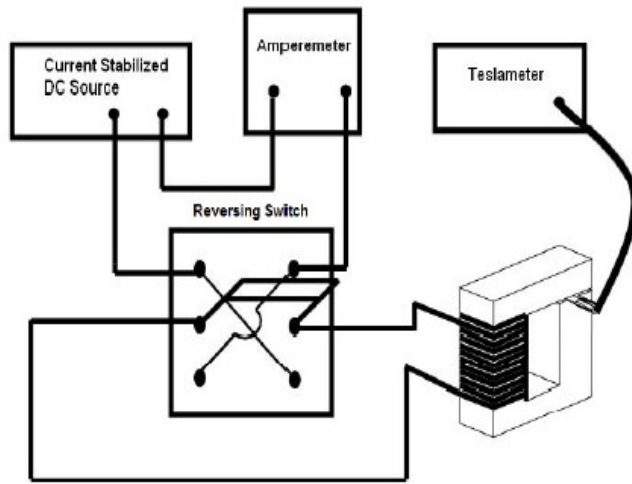
Parts & Specifications

Constant current source	4-1/2 digit, range: 0 ~ 600 mA, adjustable
Magnetic material sample	3 pcs, rectangular bar, section length: 2.0 cm; width: 2.0 cm; gap: 2.0 mm
Digital Teslameter	4-1/2 digit, range: 0 ~ 2 T, resolution: 0.1 mT, with Hall probe

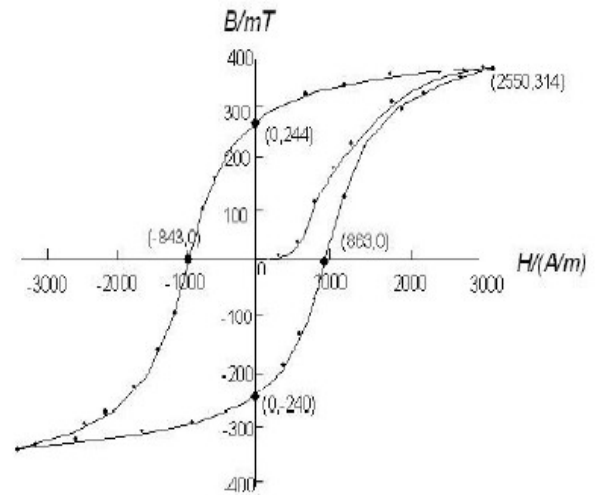
Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.

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Schematic of experimental configuration



Saturated hysteresis loop & initial magnetization curve

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