

## MATS-2010M

## Soft Magnetic Material Dynamic Hysteresisgraph System

## Model MATS-2010M



Automatic measurement on dynamic hysteresis loop of soft magnetic (silicon steel) material under 50Hz, 60Hz, 400Hz and 1kHz, accurate measurement on dynamic magnetic characteristic parameters such as amplitude permeability  $\mu_a$ , loss angle  $\delta$ , total losses  $P_s$ , remanence  $B_r$  and coercive force  $H_c$ .

Windows measurement software applied simply. The product conforms to China National Standards GB / T3655 - 92, GB / T13789 - 92 and international standard IEC60404 - 6.

Analog source (bridge), frequency meter, ammeter, voltmeter and wattmeter are replaced through computer control and A/D sampling, entire testing process automatically completed.

## General Features

## Software Features

## Software Screen

## Technical Data

## Standard Package

- Testing sample varieties: hot rolling, cold rolling silicon steel materials, permalloy, amorphous and nm crystal.
- Testing sample shapes: ribbon and chip open samples, annular, E and U closing samples.
- Open circuit samples adopt epstein frames to form closed magnetic circuit, can also select permeameter. Closing sample can be put under direct winding measurement, finished transformer can be also put under direct measurement.
- Sample( iron core), magnetizing coil (N1) and measuring coil (N2) form a no-load transformer.
- On-inductive resistance connected on magnetizing coil loop to determine magnetizing current and magnetic field intensity through the measurement of pressure drop on non inductive resistance, magnetic field peak value can be locked through digital feedback, magnetic field lock precision 0.5%.
- Magnetic induction density obtained through digital integration of coil measuring voltage, magnetic induction peak value locked through digital feedback, magnetic induction lock precision 0.2%.
- Power source and sampling amplifier integrated into a casing with simple interface: one RS232 interface connected to the computer, two way voltage signal connected to A/D card.
- Adopt volammetry and digital integration to measure dynamic hysteresis loop, can accurately measure dynamic magnetic characteristic parameters such as  $\mu_a$ ,  $\delta$ ,  $P_s$ ,  $B_r$  and  $H_c$ , etc.
- Automatic and continuous measurement up to 255 testing points, the testing time of every testing point is about 30 seconds, fixed-frequency, fixed  $B_m$  or fixed  $H_m$  optional in multipoint test.

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