

## 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

## System Specifications

Under 50Hz frequency, use 25cm Epstein frames to measure silicon steel sample, technical indices as follows:

Parameters measured	$B_m$ (%)	$H_m$ (%)	$\mu_a$ (%)	$P_s$ (%)	$\delta$ (%)
Uncertainty (k=2)	1	1	2	1	2
Repeatability (constant temperature)	$\pm 0.5$	$\pm 0.5$	$\pm 1$	$\pm 0.5$	$\pm 1$

## Instrument Specifications

MATS - 2010M Dynamic Hysteresisgraph	PC6111 A/D Card
Output Power: 500VA sine wave	Conversion time: $\leq 2.5 \mu s$ (every channel)
Frequency Range: 45Hz~ 1000Hz	Resolution and Linearity: 12 Bit $\pm 1/2$ LSB
Frequency Fineness: 1Hz	Voltage Range: $\pm 5 V \sim \pm 10 V$
Frequency Error: $< 0.05\%$	Sampling Clock: $5 \mu s \sim 10ms$ Hardware Clock
Output Voltage: 0 ~ 10V ~ 50V ~ 150V ~ 300V, four automatic ranges	Internal Storage Capacity: 4k Byte
Voltage Fineness: Program Control 1mV, panel $< 0.1\%$ * current range	Structure: PCI busbar
Voltage Distortion Factor: Superior to 0.5%	
Voltage Stability: Superior to 0.02%	
Sampling Current: 2mA, 5mA, 10mA, 20mA, 40mA, 80mA, 200mA, 400mA,	

800mA, 1.6A, 4A, 8A (Peak Value)

Sample Voltage: 20mV, 40mV, 100mV, 200mV, 400mV, 800mV, 2V, 4V, 8V,  
16V,

40V, 80V, 160V, 320V, 800V, 1600V (Peak Value)