Model	KS-Z023
Electromagnetic vibration tester	

Technical Solutions

1、**Advanced factory, leading technology**

2、**Reliability and applicability**

3、**Environmental protection and energy saving**

4、**Humanized and automated system network management**

5、**Timely and perfect after-sales service system with long-term guarantee**

DONGGUAN KESION PRECISION INSTRUMENT CO.,LTD

Electromagnetic vibration tester

1.Product Introduction :

KS-Z023 series electromagnetic shaker is an economic, but super cost-effective a sine vibration test equipment (functions cover fixed frequency vibration, linear sweep vibration, logarithmic sweep, frequency multiplier, program, etc.), in the test chamber to simulate the vibration of electrical and electronic products in transport (vibration generated by ships, aircraft, vehicles, spacecraft), storage, use process and assessment of the vibration and its impact, and Its adaptability.

KS-Z023 series electromagnetic shaker is widely used in the product design, R&D and manufacturing process of automobile parts, instruments and meters, toys and other industries to simulate the collision and vibration of products in transportation and use, and to test the actual working condition and structural strength of products.

Citation Standards：

ISO 2247、ISO 13355、IEC 60068、ASTM D999、ASTM D4728、ASTM D3580、GB/T 4857、GB/T 2423…

2.Product Features：

2.1 The same table to achieve X, Y, Z three-axis vibration, program control, accurate frequency, long-term operation without drift;

2.2 Stepless adjustment of amplitude, with sweeping and fixed-frequency functions, adapting to the testing requirements of different industries;

2.3 embedded amplitude prediction program, four-point synchronous excitation, uniform vibration on the table;

2.4 Increase the anti-interference circuit to solve the interference of the control circuit due to strong electromagnetic field, the table surface without magnetism and static electricity.

2.5 Made of composite industrial materials, precision processing, beautiful and generous table, humanized operation and control, using special measurement and control module, making the equipment work more stable.

3.Software Features：

3.KS-Z023 series shaker software system is developed independently by CIMS+FCS, with completely independent intellectual property rights, and the software is updated and upgraded for free for life;

3.2 The system software adopts real-time communication connection with the shaker body to ensure the accuracy of test parameters;

3.3 The software interface is intuitive and simple, a variety of test mode partition settings, a key directly;
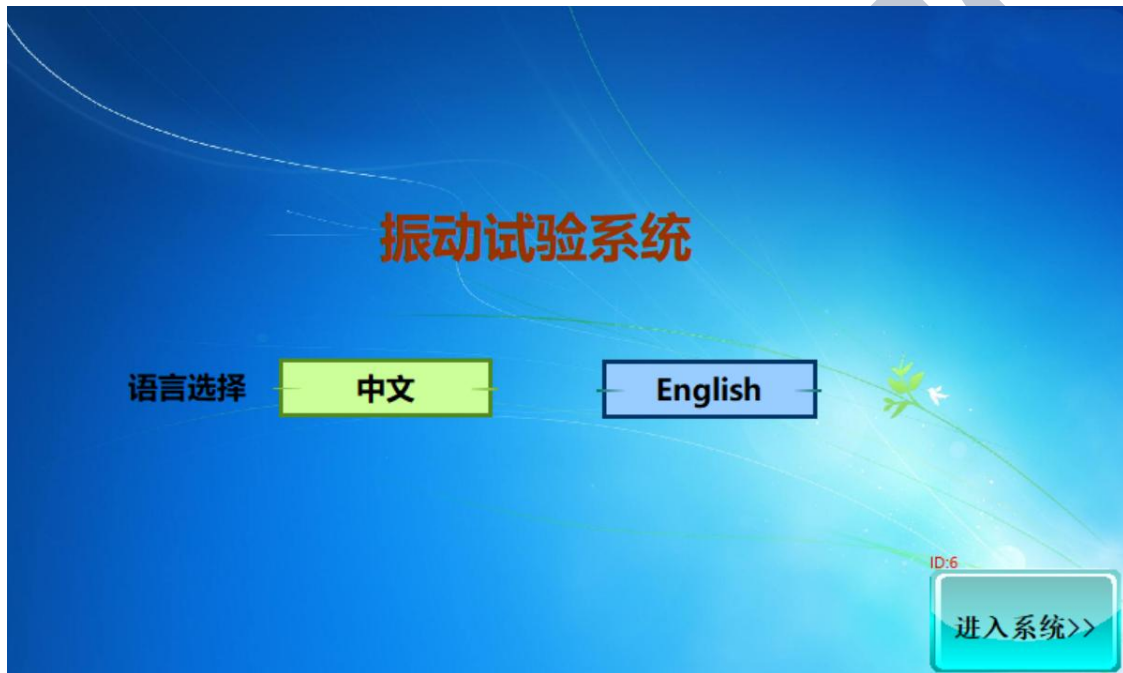
3.4 The system software can be connected to the computer through the data line to store, output, or edit the test results;

3.5 The control system adopts the brand high-sensitivity touch color LCD display, direct touch option, test parameter setting intuitive and simple, timely display of the current execution program, timely display of the current vibration frequency, drawing frequency curve function;

3.6 Application of vibration sensing technology devices, external vibration acceleration sensor can be connected, real-time feedback on the testing process.

4.Technical parameters：

Product Model	KS-Z023
FM range	5～600(Hz)
Frequency accuracy	0.1 Hz
Stimulation force	200kgf
Product Load	50(Kg)
Vibration Direction	Second axis (X+Y+Z) axis
Vibrating platform	（W）500×（D）500（mm）
Maximum acceleration peak	20g
Amplitude(mm)	0—5
Control method	7 inch industrial touch screen（CTM70IP）
Stimulation method	Electromagnetic type
Amplitude adjustment method	Electronic amplitude control
Vibration waveform	Sine wave
Set time range	0-9999H/M/SPoints can be set arbitrarily
Number of cycles	0-9999 Arbitrary settings
Software Features	Support Windows97，Windows98，Windows10，
Data Export	Excel，PDF

Port	RS232-USB
Security Protection	Over temperature, phase loss, short circuit, over current, over load
Cooling method	Air-cooled

Test Mode	
Fixed frequency test	Sine vibration test at the selected frequency (can be resonant frequency, specific frequency, or dangerous frequency) at the specified amount and for the specified required time.
Frequency sweep test	In the specified frequency range, according to the specified amount of value to a certain scan rate from low frequency to high frequency, and then from high frequency to low frequency as a sweep, until the total number of times or time specified.
Logarithmic test	In logarithmic mode, the low-frequency scan speed is slow and the high-frequency scan speed is fast, and the logarithmic sweep is done in 1 minute, and the sweep rate is doubled in 1 minute.

Randomized trials	Random vibration is a kind of non-deterministic vibration. When an object vibrates randomly, it is impossible to determine in advance the instantaneous values of the motion parameters at a certain monitoring point on the object at some future time.
Program test	According to the test demand, can set different test frequency, time, can be a single group or multiple groups.

Frequency doubling test	Octave sweep is continuous and its frequency should change with time according to the exponential law, sweep rate (sweep process of controllable variable frequency change rate of time df / dt) should be an octave per minute. There is a frequency range from f1 → f2 → f1 sweep a test time (acceleration time), through the formula: 6.644log10 (high frequency / low frequency) calculated from the results, and its sweep rate to ensure that the 1 octave / minute requirements.

Frequency Curve	
Acceleration curve	
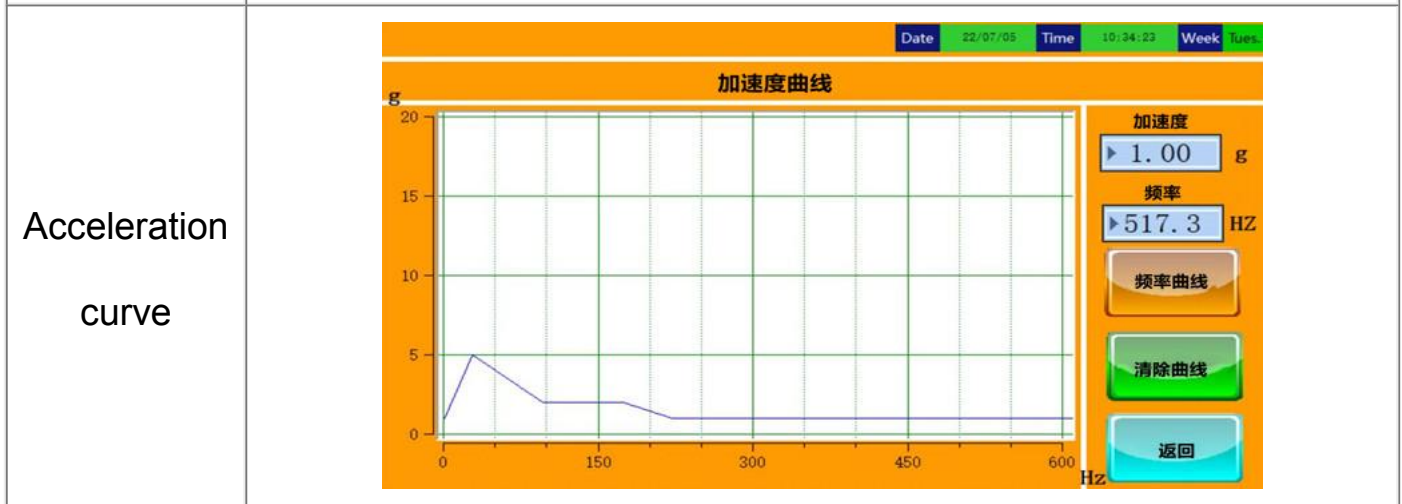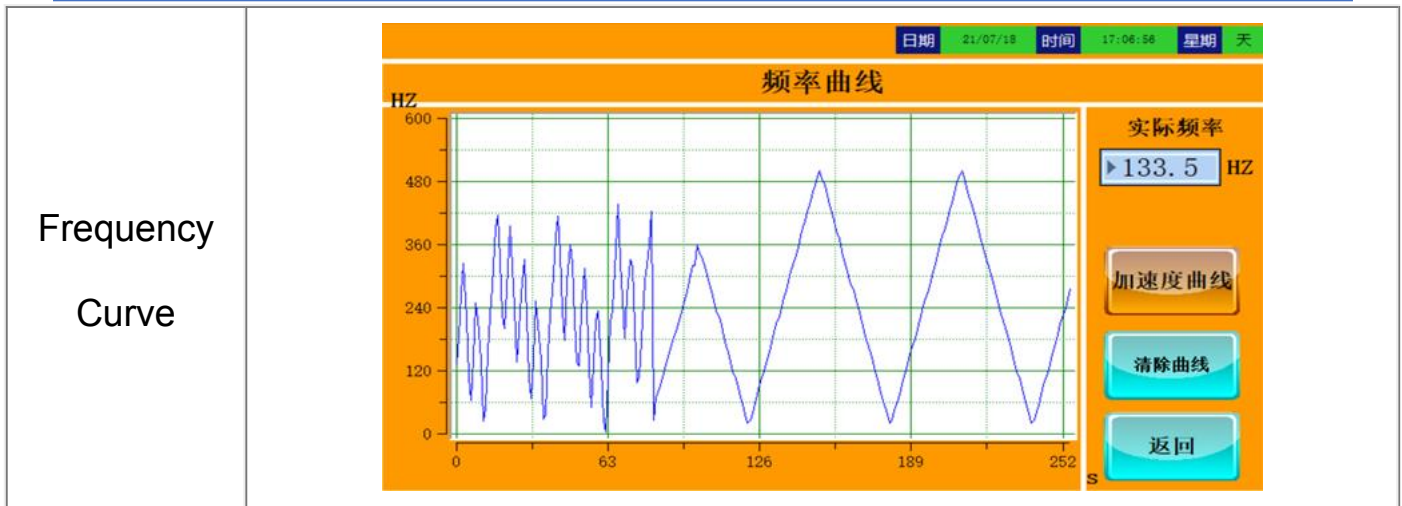
Shaker Body

Worktop material	Tungsten carbide aluminum sheet
Worktop size	（W）500×（D）500（mm）
Workbench size	（W）500×（D）500×（H）720（mm）
Control box size	（W）450×（D）400×（H）1080（mm）
Whole machine quality	245（Kg）

Power supply system

Supply voltage	220/50±5%(V/Hz)

Power consumption	1.5(KVA)
Random Accessories	
4 special rings, 2 telescopic straps, testing machine manual, factory inspection certificate, warranty certificate	
Usage environment	
1、Temperature range: -40℃～40℃; Humidity range: 0-90%, no condensation. 2、The installation site has flat ground and sufficient load-bearing, no corrosive gas and less dust around.	