

SUPPLYING THE PRODUCTS WITH HIGH PERFORMANCE-PRICE RATIO

SUZHOU SONIC DYNAMICS TESTING EQUIPMENT CO.,LTD.



Model: S801LS3-550/SPA104/ACU303



Typical System Application

The **Model S801LS3-550 Air Cooled/SPA-104/ACU303** with 8000kgf long stroke Vibration Test System is a versatile wide frequency band electro-dynamics vibration test system. The feature of the long stroke of 3 inches was designed to meet today's demanding high displacement random and shock test requirements with small to medium sized specimen.

Often eliminating the need for messy hydraulic shakers and stand-alone shock test equipment, the long stroke series increases the spectrum of your lab's testing capability without requiring additional real estate and capital expense. Requiring no cooling water, air cooled shakers are easy to install. Additional standard features include: integral payload support, rotating trunnion base with pneumatic isolation, 1:1 Sine to Random output force ratio and high fundamental armature resonance.

◎ High FRF & Wide UF

Our new shaker design significantly raises the FRF (Fundamental Resonance Frequency) and UF (Useable Frequency) of our long stroke systems and outperforms similar products from other manufacturers.

◎ Reliable Armature

The unique reinforced armature structure design is state-of-the-art, providing increased reliability and unsurpassed performance. Our proprietary armature structure has been re-designed to optimize its rigidity and force transmissibility. Designed for continuous duty and ideal for research & development, production, stress screening and qualification testing, our ruggedized armatures can endure severe vibration and shock forces and extreme temperature conditions.

◎ Efficient Air Cooling

Recently re-engineered for optimal cooling capacity, the efficient airflow design contributes to our system's outstanding overall reliability. Our new and improved airflow cooling design uses more efficient long air tunnels instead of circular inlet paths and a new state-of-the-art honeycomb design for maximum field coil cooling capability.

◎ Cooling Blower with Silencer

Remote cooling blowers equipped with noise-reducing silencers are appropriately sized to provide optimum cooling efficiency and are included with all long stroke systems.

◎ Air-Isolated Rotating Trunnion

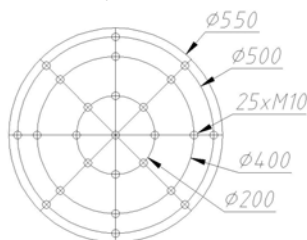
All shakers come standard in a rotating trunnion for easy 90° rotation between the horizontal and vertical test axes. A labor-saving worm wheel is designed for this rotation, which make it friendly for both men and women. Trunnion is pneumatically isolated providing high stability and allowing for direct mounting onto conventional industrial concrete floors. All shakers are optionally available with an integrated or stand-alone slip table assembly.

◎ D-Class Switching Amplifier

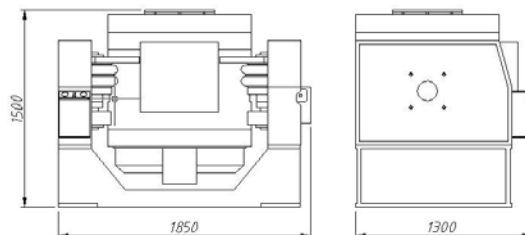
Our state-of-art modular switching amplifiers are 100% air-cooled with redundant safety systems and system interlocks insuring performance that is reliable and stable. All amplifiers adopt IGBT power modules of high quality.

◎ Safety

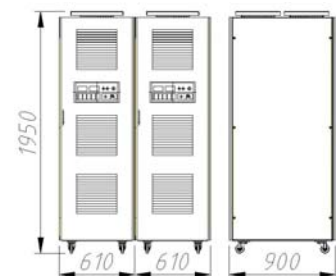
Products comply with European tests standards and ISO regulations.



Armature insert pattern



Shaker body



Amplifier

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S801LS3-550 Air Cooled/SPA-104/ACU303 TECHNICAL SPECIFICATIONS

S801LS3-550 Air Cooled Shaker Specifications

Sine Force (Pk)	8,000 kgf *(17,600 lbf)	Vertical Load Support	1000 kg (2,200 lbs)
Random Force (RMS)	8,000 kgf *(17,600 lbf)	Table Diameter	550 mm (21.6")
Shock Force (Pk)	16,000 kgf (35,200 lbf)	Load Attachment Points (Standard)	Armature Inserts M10 on center, 200mm, 400mm and 500mm Bolt Circles, each circle 8 inserts. (UNC option)
Usable Frequency	0 to 2,300 Hz		
Maximum Displacement (p-p)	76mm (3") intermittence 63mm (2.5") continuous	Degauss Coil	Standard
		Stray Flux Density @6 inch (152 mm) above table	< 1.5** mT (15 gauss)
Maximum Velocity	180 cm/s (70.9 in/s)	Overall Dimensions	1850mmL×1300mmD ×1500mmH (72.8"L×51.2"D×59"H)
Maximum Acceleration	100 g		
Fundamental Resonance Frequency (Bare table)	2,000 Hz (nom.) +/- 5%	Weight of Shaker (Uncrated)	7,300 kg (16,000 lbs)
Body Suspension Natural Frequency (Thrust Axis)	Less than 2.5 Hz	Compressed Air Requirement	0.6 Mpa (87 psi)
Armature Effective Nominal Weight	82 kg (180 lbs)		

SPA104 Power Amplifier Specifications

Rated Output Capacity	100 kVA
Signal to Noise Ratio	Greater than 65 dB
Amplifier Efficiency	Greater than 90%
Interlock Protection (to prevent the output devices from working outside their specified limits)	<ul style="list-style-type: none"> ●Over-Current ●Logic Fault ●Input Phase Loss ●Over-Voltage ●System Fault ●Input Under-Voltage ●Over-Travel ●External Fault ●Door Interlock ●Over-Temp (Field Coil and Driving Coil)
Switching Frequency kHz	60 kHz
Frequency resonance	DC-3500 Hz
Harmonic Distortion	< 0.5% @ full frequency range
Parallel Power Current Share	Better than 97%

ACU303 Blower Specifications

Blower Power (Full Load)	30 kW (40 HP)
Air Flow Rate	Air Flow: 1.6 m ³ /s (3,400 CFM) Air Pressure: 7.5 kpa (1.28 PSI)

System Environmental Requirement

Operating Room Temperature	0 to 40 degree C
Humidity	0 to 80%, non condensing
System Continuous Duty	not less than 7 hours at the full ratings
Power Supply Requirement	380VAC/50 Hz, 3Ph, 145 kVA, 415/480VAC/60Hz option

SYSTEM OPTIONS

<ul style="list-style-type: none"> ●Slip Table Configuration ●V-Groove Caster and Rail System ●Amplifier Remote Control ●Head Expander ●Amplifier Touch Panel 	<ul style="list-style-type: none"> ●Thermal Barrier ●Load Support Air Compensator ●Air Caster ●Pneumatic Centering Controller, PCC-1 ●Armature temperature monitor
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