

SUPPLYING THE PRODUCTS WITH HIGH PERFORMANCE-PRICE RATIO

SUZHOU SONIC DYNAMICS TESTING EQUIPMENT CO.,LTD.



Model: S061-230/SPA602/ACU402



Typical System Application

The **Model S061-230** Series Vibration test system is a versatile wide frequency band electro-dynamics vibration test system. It is designed to test from small to medium sized payload such as electronic assemblies and design features meet the testing requirements of the automotive, aviation, military, medical and electronic manufacturing industries, too.

The model is capable of a **Random RMS force of 600 kgf and Sine Vector force rating of 690 kgf** in the frequency of 5 Hz to 4,000 Hz under controlled conditions. The system consists of a model S061-235 shaker and is driven by the Model SPA602 power amplifier and a 4 KW cooling blower.

Standard vibration systems consist of an electro-dynamic exciter (the "shaker"), a state-of-the-art air-cooled switching power amplifier with field power supply and a water cooling unit. Optional items including slip tables, head expanders, accelerometers and vibration controller can be added upon request.

◎ 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

S061-230 shaker and SPA602 power amplifier is totally air cooled for easy installation and economical operation.

◎ Cooling Blower Unit

The suitable Cooling blower is ACU402 as below specification.

◎ Air-Isolated Rotating Trunnion

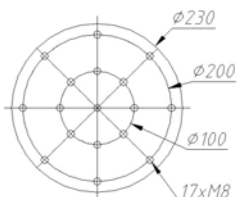
All shakers come standard in a rotating trunnion for easy 90° rotation between the horizontal and vertical test axes. Trunnion is pneumatically isolated providing high stability and allowing for direct mounting onto conventional industrial concrete floors. All shakers are optionally available with an integrated or stand-alone slip table assembly.

◎ D-Class Switching Amplifier

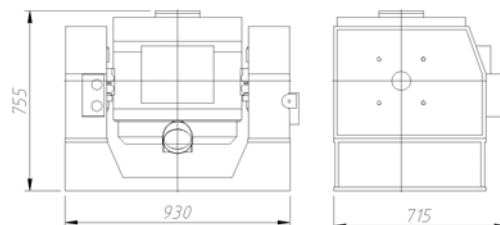
Our state-of-art modular switching amplifiers are 100% air-cooled with redundant safety systems and system interlocks insuring performance that is reliable and stable. All amplifiers adopt IGBT power modules of high quality.

◎ Safety

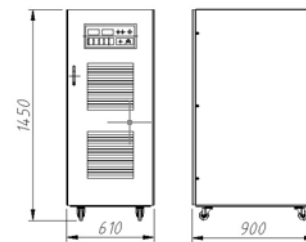
Products comply with European tests standards and ISO regulations.



Armature insert pattern



Shaker body



Amplifier

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S061-230/SPA602/ACU402 TECHNICAL SPECIFICATIONS

<i>Shaker Specifications</i>		<i>S061-230</i>	
<i>Sine (Pk)</i>	690kgf (1,510lbf)	<i>Table Diameter</i>	230 mm (7.3'')
<i>Random (RMS)</i>	600kgf (1,320lbf)	<i>Load Attachment Points (Standard)</i>	Stainless Steel Inserts of M8 or 5/16 UNC (option). Bolts circle is 1@0; 8@100mm; 8@200mm.
<i>Shock (Pk)</i>	1,350kgf (2,970lbf)		
<i>Usable Frequency</i>	5 to 4,000 Hz	<i>Degauss Coil</i>	Standard
<i>Maximum Displacement (p-p)</i>	51mm (2'')	<i>Stray Flux Density @6 inch (152 mm) above table</i>	< 1 mT (10 gauss)
<i>Maximum Velocity</i>	2 m/s (78.7 in/s)	<i>Overall Dimensions</i>	930mmL×715mmD ×755mmH (36.6''L×28.1''D×29.7''H)
<i>Maximum Acceleration</i>	100 g		
<i>Fundamental Resonance Frequency (Bare table)</i>	3,500 Hz (nom.) +/- 5%	<i>Vertical Load Support</i>	300 kg (660 lbs)
<i>Body Suspension Natural Frequency (Thrust Axis)</i>	Less than 3 Hz	<i>Weight of Shaker (Uncrated)</i>	860 kg (1,900 lbs)
<i>Armature Effective Nominal Weight</i>	6.9 kg (15.2 lbs)	<i>Compressed Air Requirement</i>	0.6 Mpa (87 psi)

<i>Power Amplifier Specifications</i>		<i>SPA602</i>	
<i>Rated Output Capacity</i>		6KVA	
<i>Signal to Noise Ratio</i>		Greater than 65 dB	
<i>Amplifier Efficiency</i>		Greater than 90%	
<i>Interlock Protection (to prevent the output devices from working outside their specified limits)</i>		<ul style="list-style-type: none"> ●Input Over/Under Voltage ●Logic Fault ●Output Over Voltage/Current ●Control Power ●External ●Shaker Oil Pressure ●Module O/T ●Door Interlock ●Shaker Temp 	

<i>Air Cooling Blower</i>		<i>ACU402</i>	
<i>Blower Power (Full Load)</i>		4 kW (5 HP)	
<i>Air Flow Rate</i>		Air Flow: 0.33 m ³ /s (700CFM) Air Pressure: 0.0035 Mpa (0.51psi)	

<i>System Environmental Requirement</i>	
<i>Operating Room Temperature</i>	0 to 40 degree C
<i>Humidity</i>	0 to 85%, non condensing
<i>System Continuous Duty</i>	not less than 7 hours at the full ratings
<i>Amplifier Power Requirement, including blower motor</i>	380/415/480 VAC, 50/60 Hz, 3Ph, 17.5 kVA

<i>SYSTEM OPTIONS</i>	
<ul style="list-style-type: none"> ●Slip Table Configuration ●V-Groove Caster and Rail System ●Remote Control ●Head Expander 	<ul style="list-style-type: none"> ●Thermal Barrier ●Load Support Air Compensator ●Air Caster