

VR5500

The VR5500 is our strongest permanent magnet field shaker system. Capable of up to 75lbs force, the 3-inch diameter armature table is suitable for larger loads that require high vibration levels. The shaker's full 1-inch armature stroke capability is ideal for many modal as well as low frequency general applications. The air cooled amplifier is direct coupled to the shaker to give the maximum performance at low and high frequencies and can be easily switched from voltage source mode for general testing to current source mode for modal testing applications. Dual meters display the system operating levels and complete shaker and user interlocks help protect the system from accidental abuse. A guided flexure table base system is available for larger or heavier loads and loads with a higher center of gravity.



VR5500 SYSTEM SPECIFICATIONS

Sine Force	75F-lb pk
Random Force	28F-lb rms
Shock Force	75F-lb pk
Frequency Range	DC to 6,500Hz
Max Acceleration	75g pk, bare table 38g pk, 1lb. load 12g pk, 5lb load
Max Velocity	120ips pk
Max Displacement	Continuous: 1.0" pk-pk, bare table Between stops: 1.03" pk-pk, bare table
Power Requirements	3,000VA @ 100*, 110*, 200, 220 or 240V, 1Ø, 50/60Hz <small>*consult the factory for low line voltage operation details</small>

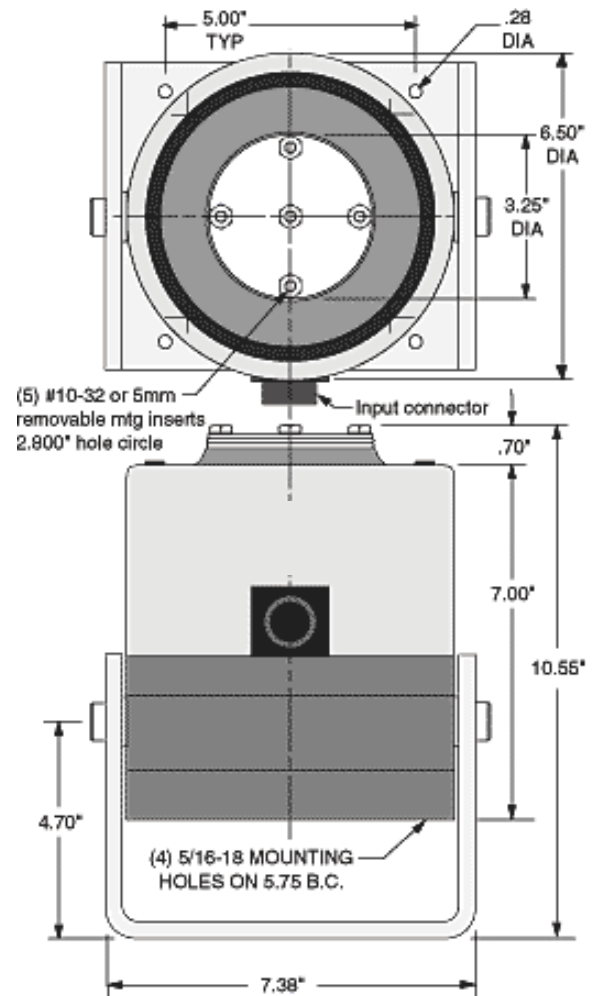
SHAKER PARAMETERS

PHYSICAL

Armature weight	1lb
Suspension stiffness	60lb/in
Dimensions	10.4"H x 7.4"W x 6.5"D
Shaker weight	28lbs
Stray magnetic field	Measured 1.5" above table: <15 gauss Measured 1.0" from body: <20 gauss
Fundamental resonance ¹	4,000 to 5,000Hz

LOAD DEPENDENT PERFORMANCE

Bare table	75g
2lbs Load	38g
10lbs Load	12.5g pk
Cooling	Natural convection



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Power Amplifier



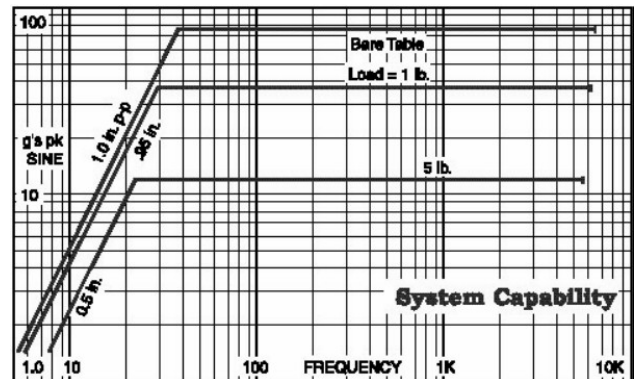
VR5500 SYSTEM OPTIONS

- Vibration isolation mounts
- Modal stingers and mounts
- Cooling blower required for operation above 40 F-lb
- Rack cabinets
- Vibration controllers

The Linear Power Amplifier is a high quality, air-cooled, direct-coupled audio amplifier primarily intended for use with vibration systems. Although this amplifier has been designed to directly drive low impedance loads, it can be used in any application requiring continuous duty, high quality, audio power. There are two operational modes: the amplifier can be used as either a wide-band, highly damped voltage source, or as a high impedance current source. DC and AC coupled signal inputs are provided. In order to insure long term reliability, the amplifier features protection from both over current and over temperature. Full interlock circuitry is also included. Peak voltage and RMS current bar graphs monitor output conditions. Optional, internal DC field power supplies are available for use in conjunction with Vibration Research shakers. These options provide the convenience of a single chassis power source, as well as a fully integrated power-up and cooling interlock circuitry with the power amplifier. Switched 115Vac power is provided for shaker cooling blower and control instrument requirements. The amplifier is designed for standard 19" rack mounted installation and can be operated on 100, 120, 200, 220 or 240V, 48-62Hz power.

AMPLIFIER PARAMETERS

Output voltage	50V rms, 1,000VA
Output current	20A rms
Max. continuous dissipation	900VA
Max voltage gain	40dB
Cooling	2-speed fan, automatic
Input impedance	10,000ohms
Meters	Volts pk: 19 segment +/-5% Amps rms: 19 segment +/-5%
Interlock circuit	External, user: F.O switch or TTL Shaker, internal, optional: cooling
Optional field power	1,000W max
Input power	2,000VA max (3,000 with field) Voltage: 208 to 30Vac, 1Ø Frequency: 48 to 62Hz
Dimensions	7"H x 19"W x 17"D
Weight	48lbs



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