

LW127.123-500 Vibration System

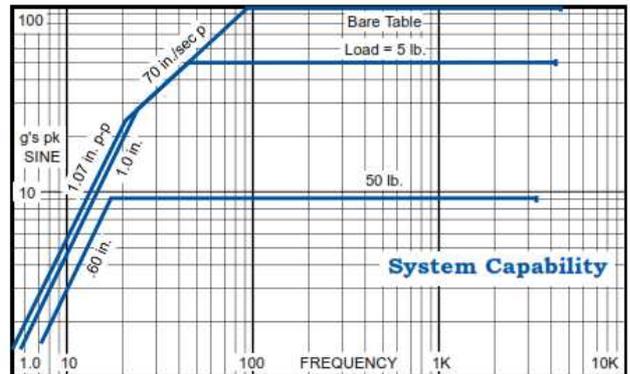


The LW127.123-500 is the largest of the current family of Labworks vibration test systems. Electrodynamic shaker systems consist of a shaker and a matching linear direct coupled power amplifier. Additional components are then added to the basic system to tailor it to your specific needs.

Your small system concerns deserve the same attention given to larger, more expensive system requirements. Unlike other manufacturers, Labworks has designed and manufactures both its shakers and matching amplifiers in-house. This insures that the components will provide optimal performance across the broad range of possible applications and that application and service information is available with one call to the source.

General Specifications

Sine Force:	500 lbs force pk
Random Force:	350 lbf rms random
Shock Force:	1,000 lbf pk shock
Frequency Range:	DC to 4,500 Hz
Max. Acceleration:	100 g pk, bare table 50 g pk, 5 lb. load 11 g pk, 40 lb. load
Max. Displacement:	1.0 inch pk-pk, bare table
Cooling:	Amplifier: forced air Shaker: cooling blower
Power Requirements:	5200 VA @ 208- 230V, 1Ø, 50/60 Hz.



System Components*

- ET-127 Electrodynamic Shaker w/De-Gauss Coil
- PA-123-3/2-500 Amplifier, De-Gauss & Field Supply
- CB-127 Cooling Blower
- Amplifier Cabinet
- Interconnect Cables and Hoses

System Options*

- VL-144 2 Ch. Sine, Random and Shock Controller
- VL-145 1 Ch. Digital Controller
- DB-127 DuoBase
- HE-127 Head Expander
- SC-121 Sine Servo Controller
- SG-135 Manual Controller
- CS-123 Current Source Signal Conditioner

*See individual components for more detailed specifications and options.



Standard trunnion allows shaker operation in any position from vertical to horizontal. CB-127 shaker cooling vacuum.

ET-127 Electrodynamic Shaker



- 500 pounds pk sine force
- 1.0 inch stroke
- 6.0 inch diameter table
- Unsupported Payloads up to 50 lbs
- Low stray magnetic field
- Frequency range DC-4,500 Hz
- Trunnion mounting base

The ET-127 Electrodynamic Transducer is well suited for testing mechanical assemblies, packaging and printed circuit boards, as well as modal applications. The shaker incorporates the latest high-tech composite materials and features a revolutionary "side load" restraint design in the armature suspension and guidance system. A host of "big shaker" options allow the ET-127 to be easily adapted to specific testing applications.

General Specifications¹

Performance

Sine force	500 lbf pk
Random force	350 lbf rms
Shock force	1000 lbf pk
Max displacement	
Continuous pk-pk	1.0 in
Between stops	1.2 in

Physical

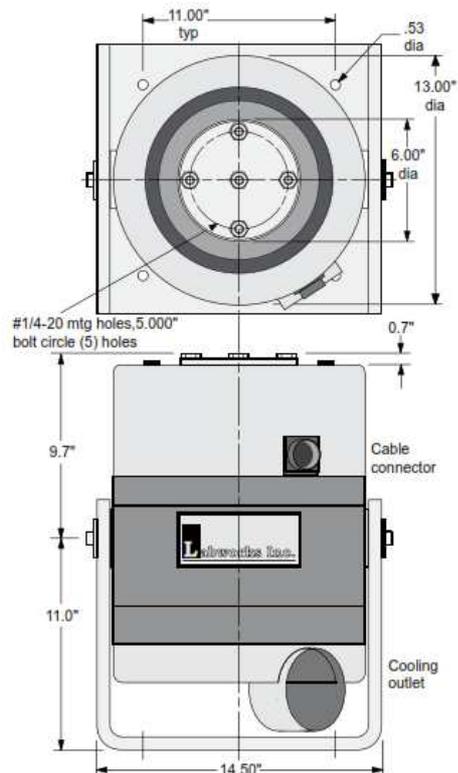
Armature weight	5.0 lb
Suspension stiffness	250 lb/in
Dimensions	21" H x 14.5" W x 14" D
Shaker weight	475 lbs

Options

- AI-127 (5 Hz) & SI-127 (10 Hz) Vibration Isolation Mounts.
- LS-127 Pneumatic Payload Support.
- DB-127 DuoBase Horizontal/Vertical Table.
- TA-127 Thermal Chamber Interface.
- M6 x 1 Metric Inserts.
- Head Plates and Fixtures

¹ Please see systems ratings for additional specifications.
Load dependent.
Specifications subject to change.

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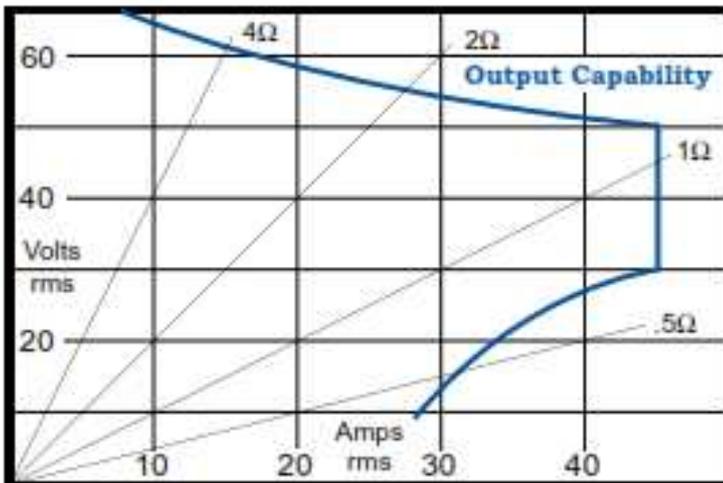
PA-123-3/2-500

Linear Power Amplifier

- Output: 65V, 2600 VA.
- DC/direct coupled linear output
- Adjustable current limiter
- Field and De-Gauss power for the ET-127 shaker

The PA-123-3/2-500 houses a field and De-Gauss power supply specifically designed to drive the ET-127 shaker. It's a class AB, air-cooled unit with a power output of 2,600 VA, and is made up of three separate interconnected chassis. The flexible PA-123 modular design allows this amplifier to be configured for use with other shakers.

The CP-123 Control Panel features a low noise preamplifier, amplifier output voltage and current metering, adjustable output current limiting, and complete interlock circuitry. The power and field supply chassis houses input power transformers, power supply circuitry, the shaker interface, shaker cooling blower power source, and field cooling interlock.



Amplifier Options

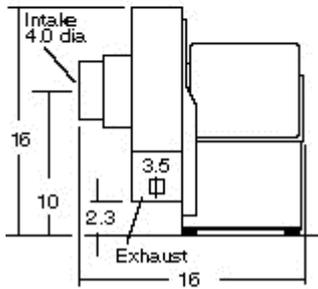
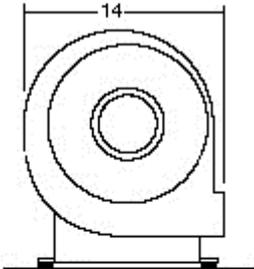
- CS-123 Current Source chassis

General Specifications*

Output voltage	65 V rms
Output current	40 A rms
Max. cont. dissipation	2250 W
Frequency response	
DC input: DC to 10 KHz	-1 dB
AC input: 1.0 to 10 KHz	-1 dB
Max. voltage gain	40 dB
Cooling	2-speed fan, automatic
Input impedance	10 kΩ
Meters	
Volts, pk	3 digit ± 1 lsd
Amps, rms/pk	3 digit ± 1 lsd
Interlock circuit	
Shaker, internal	Over travel, cooling
External, user	N.O./N.C. switch or TTL
Shaker field power	1,250 W
Input power	5,200 VA max
Voltage	208 or 230 Vac, 1Ø
Frequency	48 to 62 Hz
Dimensions	28" H x 21" W x 20" D
Weight	280 lbs

*Specifications subject to change. Call factory for latest specifications.

CB-127 Cooling Vacuum



General Specifications

Blower Type:	Suction
Flow @ Pressure:	200 cfm @ 4" H
Motor:	1/3 Hp
Power:	115 Vac, 60 Hz
Intake:	4" dia. (5" dia. w/o adapter)
Hose Length:	12.5', flexible vacuum, std
Pressure Drop:	1" H ₂ O@200 cfm
Maximum allowable combined ducting pressure drop with ET-127	