

# ET-127 *Electrodynamic Transducer*

## GENERAL DESCRIPTION

The Labworks ET-127 is a high performance general purpose Electrodynamic Transducer which is well suited for a wide variety of vibration testing. This shaker features a lightweight armature which allows smaller test articles to be subjected to high frequencies and accelerations. At the same time, the large table and rugged armature suspension easily accommodate larger loads, thus eliminating or reducing external fixture guidance and support requirements.

The unique "side load" restraint armature guidance system ensures that the suspension is axially compliant and radially rigid. Use of the latest high-tech composite materials provides reliable operation when large displacements are required, as in modal testing of large structures.

In order to adapt the shaker to specific test requirements a host of options are available, including pneumatic payload support, a unitized shaker and slip table base, custom fixtures and low frequency trunnion isolation.



- 500 POUNDS PEAK SINE FORCE
- 1.0 INCH STROKE
- 6.0 INCH DIAMETER TABLE
- 100g ACCELERATION, BARE TABLE
- TRUNNION BASE

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# STANDARD FEATURES

- AIR COOLED
- LOW STRAY MAGNETIC FIELD
- HIGH LATERAL STIFFNESS  
ARMATURE SUSPENSION
- TRUNNION BASE



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## ET-127 SPECIFICATIONS<sup>1</sup>

### PERFORMANCE

Sine force	500 lbf pk
Random force	350 lbf rms
Shock force	1000 lbf pk, 50 msec
Max displacement	
Continuous pk-pk	1.0 in
Between stops	1.2 in
Maximum velocity	70 ips pk
Acceleration <sup>1,2</sup>	
Bare table	100 g pk
5 lb load	50 g pk
20 lb load	20 g pk
Maximum acceleration	
Resonant	120 g pk
Peak shock	150 g pk

<sup>1</sup> Please see systems ratings for additional specifications.

<sup>2</sup> Load dependent.

Specifications subject to change. Consult factory for latest specifications.

### PHYSICAL

Armature weight	5.0 lb
Suspension stiffness	250 lb/in
Rated armature current	40 A rms
Frequency range <sup>2</sup>	DC-4,500 Hz
Fundamental resonance <sup>2</sup>	3,000-4,000 Hz
Stray magnetic field	
Measured 3.0" above table	<10 gauss
Measured 2.0" from body	<15 gauss
Cooling	300 CFM @ 1 inch H <sub>2</sub> O
Dimensions	21" H x 14.5" W x 14" D
Shaker weight	475 lbs

### OPTIONS

- DuoBase slip table assembly.
- Vibration isolation mounts.
- Pneumatic internal load support

