

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 SPECIFICATIONS¹

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 ^{1,2} | |
| 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 |

¹ Please see systems ratings for additional specifications.

² 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 ² | DC-4,500 Hz |
| Fundamental resonance ² | 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 ₂ 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

