

ET-140 *Electrodynamic Transducer*



GENERAL DESCRIPTION

The ET-140 shaker's compact size, long stroke and lightweight armature make it equally well suited for modal as well as general vibration testing. The shaker has a large 3.25 inch diameter mounting surface and a rugged suspension system which minimizes test fixture requirements and related fixture guidance problems. The shaker trunnion allows the shaker to be operated in any axis from vertical to horizontal and is easily positioned for modal applications. It also facilitates bolting the shaker in place either with or without vibration isolation mounts.

Reliability is assured through the use of the latest composite materials in the unique, all flexure, armature suspension design. The design provides excellent axial compliance with high lateral stiffness and has no rolling or sliding components to wear out and/or produce unwanted noise and distortion. When combined with the correct Labworks linear power amplifier, the system is unmatched for reliability, performance and cost.

- 110 POUNDS PK SINE FORCE
- 75 POUNDS PK RANDOM FORCE
- 1.0 INCH STROKE
- 3.25 INCH DIAMETER TABLE
- 110g ACCELERATION, BARE TABLE
- TRUNNION MOUNTING BASE

Labworks Inc.

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STANDARD FEATURES

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



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ET-140 SPECIFICATIONS¹

PERFORMANCE

Sine force	110 lbf pk
Random force	75 lbf rms
Shock force	225 lbf pk, 50 msec
Max displacement	
Continuous pk-pk	1.0 in
Between stops	1.03 in
Maximum velocity	70 ips pk
Acceleration ^{1,2}	
Bare table	110 g pk
1 lb load	55 g pk
5 lb load	18 g pk
Maximum acceleration	
Resonant	150 g pk
Peak shock	200 g pk

PHYSICAL

Armature weight	1.0 lb
Suspension stiffness	90 lb/in
Rated armature current	22 A rms
Frequency range ²	DC-6,500 Hz
Fundamental resonance ²	4,000-5,000 Hz
Stray magnetic field	
Measured 1.5" above table	<20 gauss
Measured 1.0" from body	<25 gauss
Field Power	175W
Cooling	100 CFM/15 in H ₂ O
Dimensions	11.5" H x 7.4" W x 6.5" D
Shaker weight	56 lbs

OPTIONS

Vibration isolation mounts.
 Modal stingers and mounts.

¹ Please see systems ratings for additional specifications.

² Load dependent.

Specifications subject to change. Consult factory for latest specifications.

