APS 600 ELECTRO-SEIS®

Very long stroke shaker with air bearing load mounting table



Applications

- ✓ calibration and testing for seismic instruments like geophones and heavy seismic sensors
- ✓ seismic simulation for components

Range of use

- ✓ vibration testing in the very low frequency range
- ✓ calibration of heavy sensors (seismometers)

Features

- ✓ 215 N (48 lbf) force (sine peak)
- ✓ 450 mm stroke (peak-peak)
- ✓ 254 × 254 mm (10 × 10 in) load mounting table
- ✓ up to 25 kg (55 lbs) test load with very low crossaxis motion
- ✓ efficient electrodynamic driver produces sine, random or transient waveforms
- ✓ excellent waveform purity

Specification

The APS 600 ELECTRO-SEIS® air bearing shaker is a very long strong force generator specifically designed to be used for calibration and evaluation of accelerometers and other motion transducers. It provides excellent properties for very low frequency excitation of such devices. This model consists of an air bearing table that allows high payloads up to 25 kg (55 lbs) e.g. for the calibration of geophones and heavy seismic sensors.

Technical data

Force [1) 2)]	215 N (48 lbf)
Stroke (peak-peak) [3)]	400 mm (15.75 in)
Frequency range	DC…50 Hz
Operation	horizontal
Armature weight	9.3 kg (20.5 lbs)
Payload, max.	25 kg (55 lbs)
DC coil resistance	1.7 Ohm
Air pressure (required)	2 bar…3 bar (30 psig…45 psig)
Air flow (required)	650 l/h (0.4 cfm)
Air quality	ISO 8573.1 Class 3
Total weight	250 kg (550 lb)
Overall dimensions L × W × H	905 mm × 440 mm × 360 mm (35.6 in × 17.4 in × 14.2 in)
Load table size L × W	254 mm × 254 mm (10 in × 10 in)
Temperature range (in operation)	+23 °C, ±2 K (+73 °F, ±2 K)
Temperature range (storage)	-25 °C…+55 °C (-13 °F…+131 °F)

1) Peak sine

2) Intervall mode of operation

3) Recommended operation range peak-peak; mechanical stops at 450 mm (17.7 in)

Accessories (optional)

Power amplifier	PA 500 DM
System cable for shaker & amplifier	APS 0082-6E
Center position controller	CPC

Performance

Test loads of up to 25 kg (55 lbs) can be driven to acceleration levels typical of those found in seismic specifications. Typical performance diagrams of the APS 600 shaker with the PA 500 DM power amplifier are exemplified in the graphs below. These diagrams represent the maximum acceleration for various payloads that can be achieved on the table.

