

Vibration Test System TV 56263/LSS-250



DESCRIPTION

Longstroke Shaker with 102 mm displacement

Due to the ever increasing safety requirements the industry develops more and more sensor technology and components that have to be tested under extreme stress conditions.

The test parameters are developing up to higher and higher accelerations in combinations with large impact ranges. These tests cannot be realized with conventional standard systems with an amplitude of 50.8 mm (2 inch).

TIRA has met the requirements of the industry to manufacture test installations that can imitate extreme shock simulations. It developed a series of long-stroke shakers with an amplitude of 102 mm (4 inch, peak to peak).

Apart from their application in laboratories for testing development problems the integration of these shakers in complete production lines has optimally proved.

AMPLIFIER A 1 02 1 010 T

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|-----------------------|--|
| KVA ratings | 11000 VA |
| Frequency range | DC - 4 kHz |
| Voltage, max. | 105 V |
| Current, max. | 100 A |
| Load resistance | 1 Ohm |
| Input voltage | 2.5/5/10 V |
| Distortion | < 0.5 % |
| Signal to noise ratio | > 90 dB |
| Field voltage, max. | 280 V |
| Field current, max. | 6 A |
| Weight | 290 kg (639.3 lb) |
| Size (WxHxD) | 600 x 1800 x 800 mm (23.6 x 70.9 x 31.5 in) |

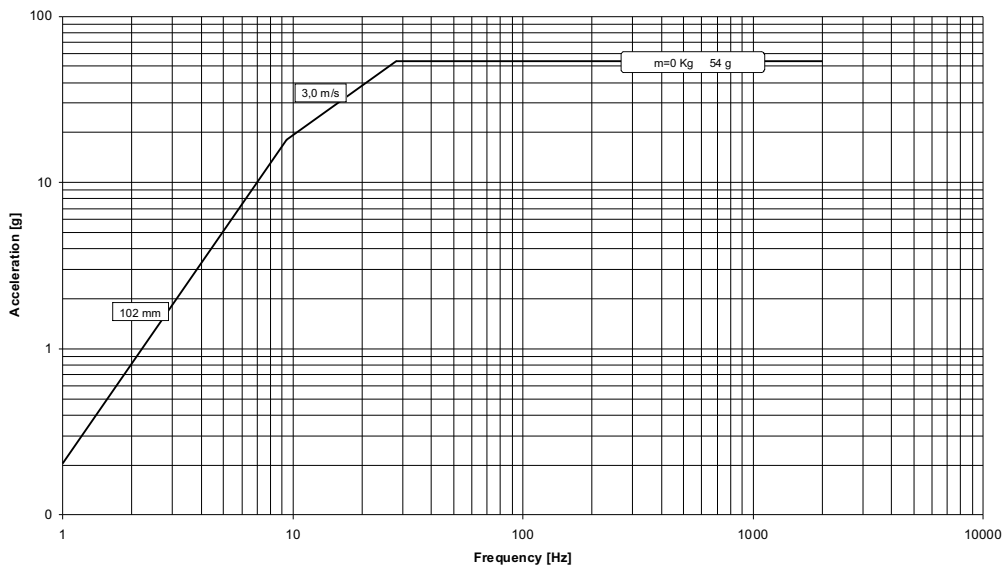
TECHNICAL SPECIFICATION VIBRATION GENERATOR S 56263/LSS-250

| | | | |
|--|---------------------------|-----------------|----------------|
| Rated peak force (N lbf) | Sine/Random/Shock | 6300/6300/12600 | 1420/1420/2830 |
| Frequency range (Hz) | | DC-2000 | DC-2000 |
| Max. rated travel (mm inch) | Pk-Pk | 102 | 4.0 |
| | Overtravel | 107 | 4.21 |
| | Mechanical Stop | 112 | 4.41 |
| Max. velocity (m/sec inch/sec) | Sine/Random/Shock | 3.0/3.0/4.5 | 118/118/177 |
| Max. acceleration (g) | Sine/Random/Shock | 54/54/107 | 54/54/107 |
| Max. power consumption at 400 V (kVA) | | 13 | 13 |
| Suspension stiffness | Electronically adjustable | | |
| Effective moving mass (kg lb) | | 12.0 | 26.5 |
| Main resonance frequency (Hz) | | >2000 | >2000 |
| Weight with trunnion (kg lb) | | 850 | 1874 |
| Armature (ø/mm ø/inch) | | 250 | 9.8 |
| Cooling (m ³ /h ft ³ /min) | | 500 | 294 |

PERFORMANCE DIAGRAM

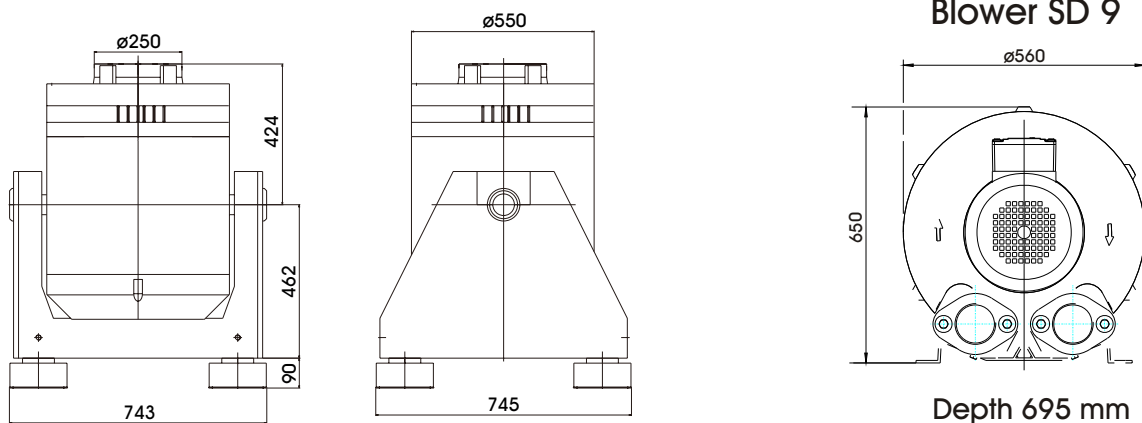
System Performance TV 56263-LSS-250

Force: 6300 N max. Acceleration: 54 g max. Velocity: 3.0 m/s max. Displacement: 102 mm



DIMENSIONS (mm)

S 56263/LSS-250 (Example drawing)



Subject to modifications