

Vibration Test System TV 50303/LS-120

DESCRIPTION

TIRA shakers reproduce vibration environment under laboratory conditions for testing the dynamic strength and the reliability in all fields of vibration testing.

TIRA shakers are designed for long-time operation. They are distinguished by their high transverse vibration strength and high axial stiffness.

The electrodynamic shaker is pivotally mounted in a rugged frame and enables the excitation in vertical and horizontal direction.

The frame is equipped with air isolation mounts according to standard. The transmission of vibrations onto the place of erection is reduced to a minimum; an additional foundation (seismic mass) is not required in most cases.

LS-Shakers reach a displacement of up to 50.8 mm (2 inches), which can be achieved with the TMC regulation. The electronic zero-point-regulation corrects the zeropoint and allows variable adjustment of stiffness.

A maintenance-free blower guarantees the cooling of the shaker. The cooling air is sucked in via a filtersystem.

TIRA shakers, amplifiers and vibration control systems represent a complete test system offering the users the possibility to establish proof of the quality of their products according to national and international standards (such as DIN, ISO, BS, MIL, IEC, ASTM).



AMPLIFIER A 1 01 1 003 T

KVA ratings	2700 VA
Frequency range	DC-4 kHz
Voltage, max.	105 V
Current, max.	25 A
Load resistance	4.2 Ohm
Input voltage	2.5/5/10 V
Distortion	<0.5 %
Signal to noise ratio	> 90 dB
Field voltage, max.	100 V
Field current, max.	6 A
Weight	265 kg (584.2 lb)
Size (WxHxD)	600 x 1800 x 800 mm (23.6 x 70.9 x 31.5 in)

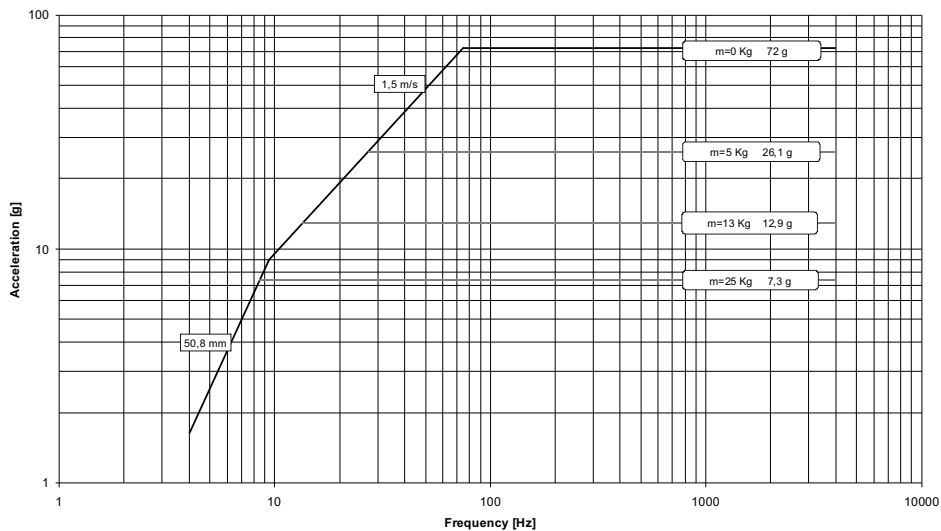
TECHNICAL SPECIFICATION VIBRATION GENERATOR S 50303/LS-120

Rated peak force (N lbf)	Sine/Random/Shock	2000/1000/4000	450/225/900
Frequency range (Hz)		DC-4000	DC-4000
Max. rated travel (mm inch)	Pk-Pk	50.8	2.0
Max. velocity (m/sec inch/sec)	Sine/Random/Shock	1.5/1.5/2.0	59/59/79
Max. acceleration (g)	Sine/Random/Shock	72/36/144	72/36/144
Max. power consumption at 400 V (kVA)		5	5
Nominal impedance (Ohm)		4	4
Max. weight tested (kg lb)		25	55.1
Effective moving mass (kg lb)		2.8	6.2
Main resonance frequency (Hz)		>3700	>3700
Weight with trunnion (kg lb)		280	617.3
Stray magnetic field (mT)	without/with degauss kit	<8.5/<0.5	<8.5/<0.5
Armature (ø/mm ø/inch)		120	4.72
Cooling (m ³ /h ft ³ /min)		100	59
Interlocks	Temperature, overtravel, airflow, overcurrent		

PERFORMANCE DIAGRAM

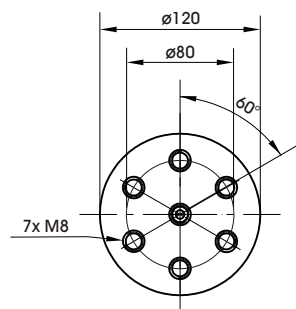
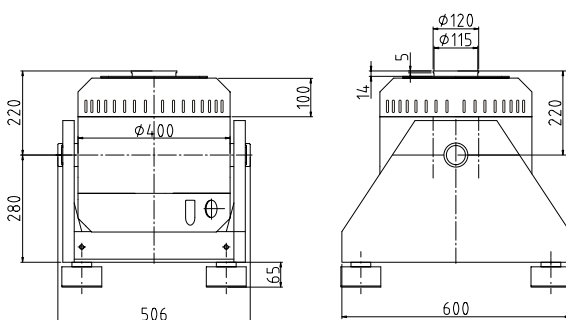
System Performance TV 50303/LS-120

Force: 2000 N max. Acceleration: 72 g max. Velocity: 1.5 m/s max. Displacement: 50.8 mm



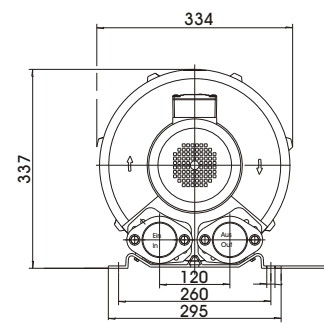
DIMENSIONS (mm)

S 50303/LS-120 (Example drawing)



Armatur 120

Lüfter SB 0200



Tiefe 314 mm

Subject to modifications