

Vibration Test System TV 51144



DESCRIPTION

TIRA permanent magnet shakers are applicable as portable and stationary systems for reproducing environmental effects.

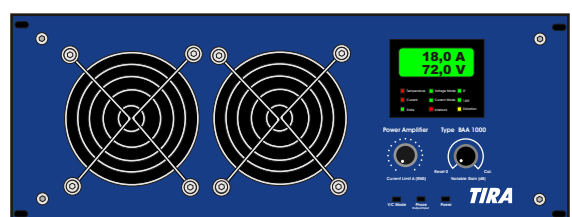
Typical fields of applications are modal excitation and analyses, structural testing, calibration of sensors and testing of small components. The rugged design of the shakers guarantees their long operating life. TIRA shakers stand for such features like a high lateral and axial stiffness.

TIRA have realized the light-weight design of shakers required by the industry. New rare-earth magnets replace the alnico magnets used up to now. Thus, a weight reduction from 30 kg (66 lb) to 10 kg (22 lb) could be achieved which enables an easy shaker-handling especially for mobile applications as "one man" excitation source.

These shakers have turned out to be outstanding in fields of applications such as environmental laboratories, universities and industrial production lines for testing components and for in-house calibration. This line of shakers enables the user to carry out tests in accordance with national and international standards such as DIN, ISO, BS, MIL, IEC ...

AMPLIFIER BAA 1000

KVA ratings	1200 VA
Frequency range	2 - 20 kHz
Voltage, max.	72 V
Current, max.	18 A
Load resistance	4 Ohm
Input voltage	< 5 V
Distortion	< 0.1 %
Signal to noise ratio	> 90 dB
Weight	45 kg (99.2 lb)
Size (WxHxD)	483 x 190 x 600 mm (19 x 7.5 x 23.6 in)



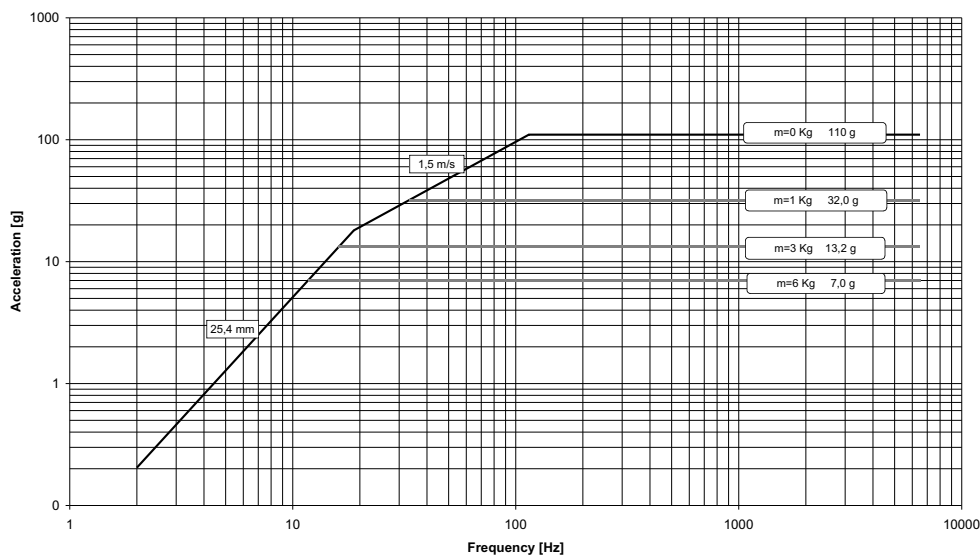
TECHNICAL SPECIFICATION VIBRATION GENERATOR S 51144

Rated peak force (N lbf)	Sine/Random	440/311	100/70
Frequency range (Hz)		2-6500	2-6500
Max. rated travel (mm inch)	Pk-Pk	25.4	1.0
Max. velocity (m/sec inch/sec)	Sine/Random	1.5/1.5	59/59
Max. acceleration (g)	Sine/Random	110/80	110/80
Max. power consumption at 230 V (kVA)		1.22	1.22
Nominal impedance (Ohm)		4	4
Suspension stiffness (N/mm lbf/inch)		5	28.6
Effective moving mass (kg lb)		0.4	0.88
Max. weight tested (kg lb)		6.0	13.2
Main resonance frequency (Hz)		> 5500	> 5500
Weight with trunnion (kg lb)		18	39.7
Armature (ø/mm ø/inch)		60	2.36
Cooling (m ³ /h ft ³ /min)		60	35

PERFORMANCE DIAGRAM

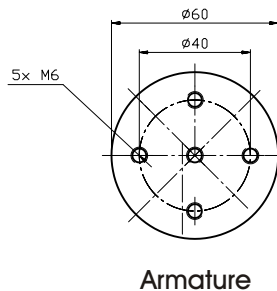
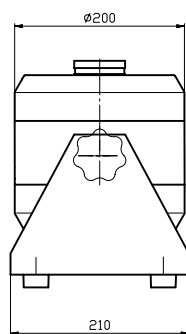
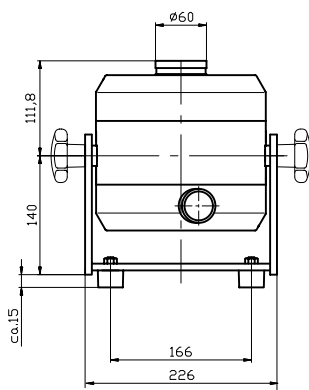
System Performance TV 51144

Force: 440 N max. Acceleration: 110 g max. Velocity: 1,5 m/s max. Displacement: 25,4 mm

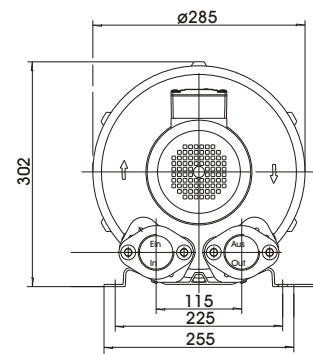


DIMENSIONS in mm

S 51144 (Example drawing)



Armature



Depth 292 mm

Subject to modifications

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