

# Vibration Test System TV 51112-IN



## DESCRIPTION

TIRA is manufacturing a range of Inertialshakers from 125 N (30 lbf) to 650 N (150 lbf). The Inertialshakers (IN) are inertial mass devices which may be attached to large structures at any angle through 360 degrees.

The design of the Inertialshakers is distinguished by a high transverse vibration strength and a high axial stiffness. These permanent magnet shakers are completely enclosed and provide their own inertial support through the use of stiff spider suspension units at each end of the shaker.

The TIRA Inertialshakers (IN) have found applications in industries, aerospace and aircraft industries, civil engineering and shipbuilding and represent a very cost-effective method of inducing vibration in large structures which are difficult to access.

## AMPLIFIER BAA 120

KVA ratings	120 VA
Frequency range	DC-20 kHz
Voltage, max.	22 V
Current, max.	5.5 A
Load resistance	4 Ohm
Input voltage	< 5 V
Distortion	< 0.1 %
Signal to noise ratio	> 90 dB
Weight	16 kg (35.3 lb)
Size (WxHxD)	483 x 90 x 450 mm (19 x 3.5 x 17.7 in)



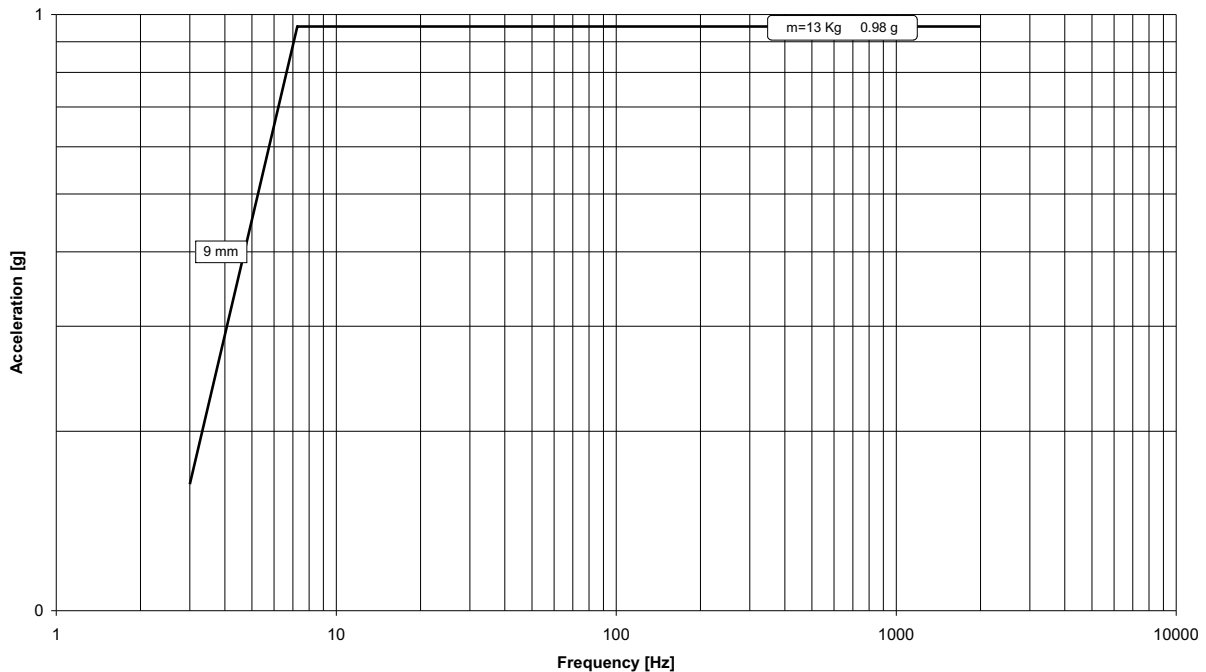
# TECHNICAL SPECIFICATION VIBRATION GENERATOR S 51112-IN

Rated peak force (N   lbf)	Sine/Random	125/70	28/16
Frequency range (Hz)		DC-2000	DC-2000
Max. rated travel (mm   inch)	Pk-Pk	9	0.4
Max. velocity (m/sec   inch/sec)	Sine/Random	1.5/1.5	59/59
Max. acceleration (g)	Sine/Random	0.98/0.54	0.98/0.54
Max. power consumption at 230 V (kVA)		0.1	0.1
Suspension stiffness (N/mm   lbf/inch)		20	114.2
Effective moving mass (kg   lb)		0.35	0.8
Weight (kg   lb)		13	28.7
Coupling Thread (ø/mm)		M12	M12

## PERFORMANCE DIAGRAM

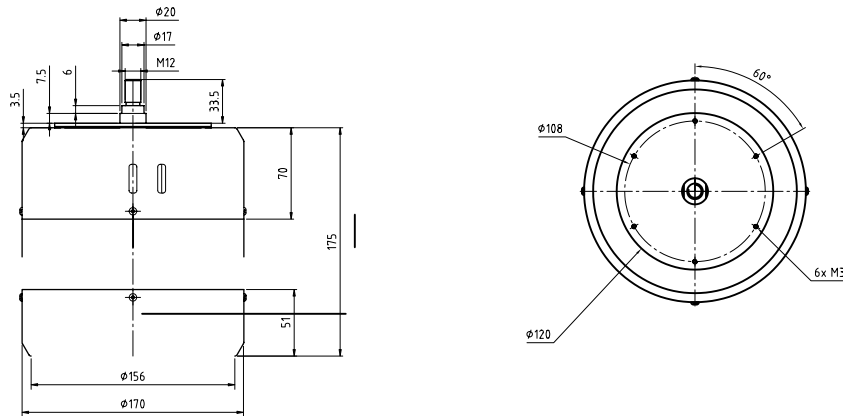
### System Performance TV 51112-IN

Force: 125 N max. Acceleration: 0.98 g max. Velocity: 1.5 m/s max. Displacement: 9 mm



## DIMENSIONS in mm

S 51112-IN (Example drawing)



Subject to modifications