

# Vibration Test System TV 50303-M



## DESCRIPTION

These exciters are specifically designed for modal and structure analysis. Modal thrusters up to 400 N (90 lb) are excited by permanent magnets, with light-weight rare earth magnets provided for mobile use. These thrusters are characterised by high cross axial stiffness.

From 650 N (146 lb) onwards, modal thrusters permit a max. displacement of 50,8 mm (2 inches) due to TMC control. TMC is an electronic armature position control system for precisely coupling the modal thruster to the specimen.

The armature datum adjustment allows the operator to offset the nominal position of the armature in relation to the body. A preload can easily be set. The axial stiffness can be adjusted electronically.

A standard feature on all modal generators is a swivel-frame. This allows a great variety of coupling options.

## 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)

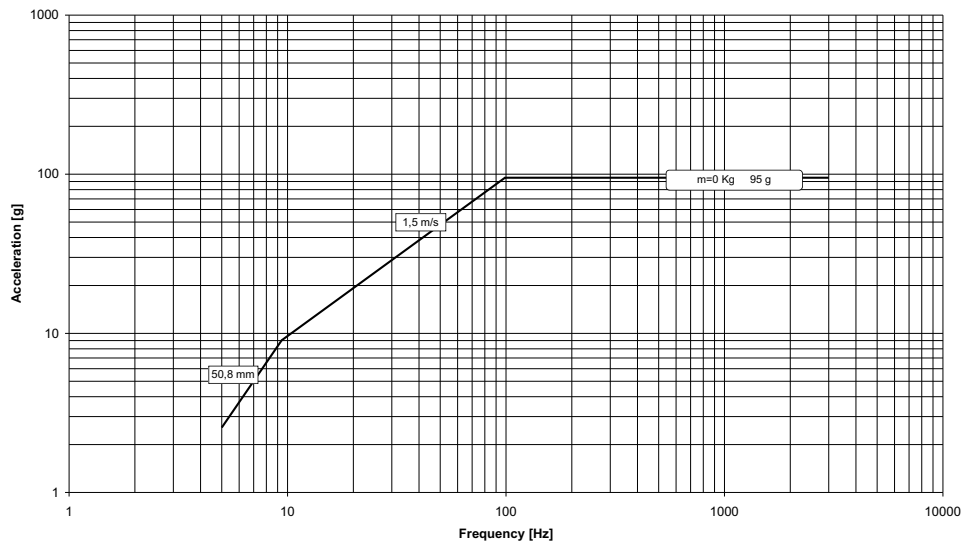
# TECHNICAL SPECIFICATION VIBRATION GENERATOR S 50303-M

Rated peak force (N   lbf)	Sine/Random	2000/1000	450/225
Frequency range (Hz)		DC-3000	DC-3000
Max. rated travel (mm   inch)	Pk-Pk	50.8	2.0
Max. velocity (m/sec   inch/sec)	Sine/Random	1.5/1.5	59/59
Max. acceleration (g)	Sine/Random	95/45	95/45
Max. power consumption at 400 V (kVA)		5	5
Nominal impedance (Ohm)		4	4
Suspension stiffness	Electronically adjustable		
Effective moving mass (kg   lb)		2.2	4.9
Main resonance frequency (Hz)		> 3000	> 3000
Weight with trunnion (kg   lb)		280	617.3
Stray magnetic field (mT)	without/with degauss kit	< 8.5 / < 0.5	< 8.5 / < 0.5
Coupling Thread (ø/mm)		M8	M8
Cooling (m <sup>3</sup> /h   ft <sup>3</sup> /min)		100	59

## PERFORMANCE DIAGRAM

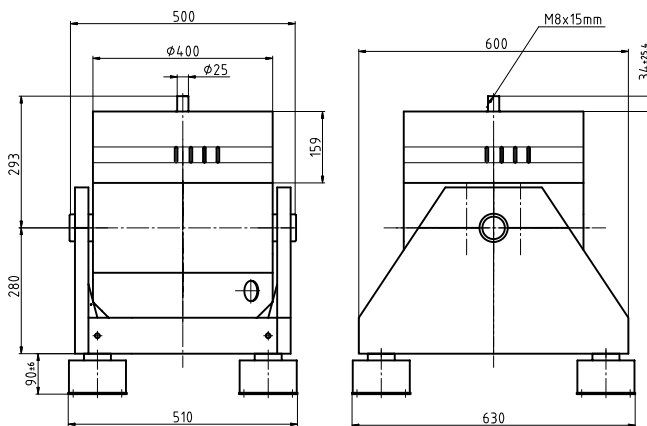
### System Performance TV 50303-M

Force: 2000 N max. Acceleration: 95 g max. Velocity: 1.5 m/s max. Displacement: 50.8 mm

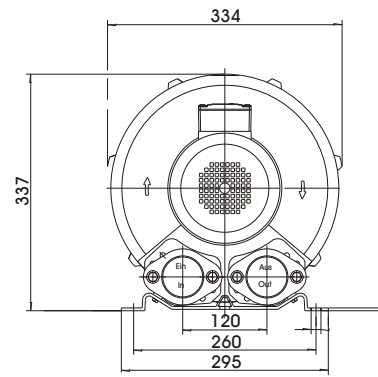


## DIMENSIONS in mm

S 50303-M (Example drawing)



### Blower SB 0200



Depth 314 mm

Subject to modifications