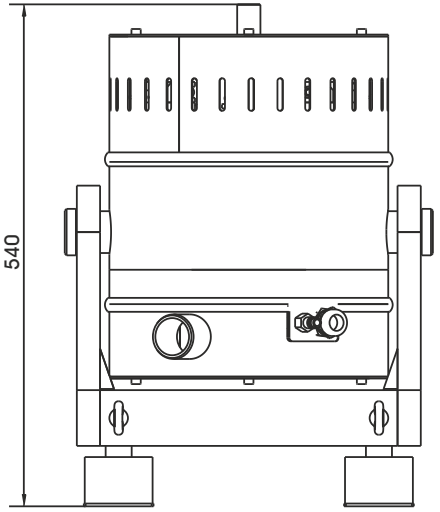
Modal Vibration Test System TV 5220-M

S 5220-M (Example drawing) Dimensions in mm

TECHNICAL PARAMETERS Modal exciter S 5220-M

Rated peak force $Sine_{pk}$/$Random_{RMS}$ [1]	1000/650 N
Frequency range	1 - 5000 Hz
Main resonance frequency (free-swinging)	>4000 Hz
Max. displacement Peak-Peak	45.0 mm
Max. velocity	1.5 m/s
Suspension stiffness	electronically adjustable
Effective moving mass (±5%)	1.45 kg
Total mass	122 kg
Coupling thread	M8
Interlocks	Field coil temperature, displacement, cooling air, overcurrent





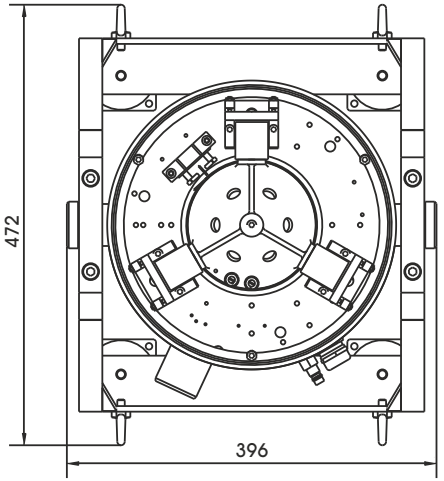
1) Random force according to ISO 5344:2004
For long-term tests, the load must be reduced to 80 %. Continuous operation at maximum load can cause damage.

SCOPE OF DELIVERY, OPTIONS AND FEATURES OF THE SYSTEM

Scope of delivery:
- Modal exciter
- Trunnion mount
- Power amplifier
- Field power supply (FPS)
- Electronic zero point regulation (Tira Middle Control=TMC)
- Cooling blower
- Connection cable (5 m)
- Power cables (each 1.5 m) for amplifier, FPS and TMC (CEE 7/7 connector)
- Blower hose ø50 mm (5 m)

Options:
- Squeak&Rattle (Silent operation without blower)
- 19" Rack for integrating of amplifier/FPS/TMC
- Silencer for cooling blower (Noise reduction up to 8 dB(A))
- Acoustic enclosure for cooling blower (Noise reduction 15 - 23 dB(A))
- Cable extension
- Factory acceptance test

Features:
- Vibration isolation < 6 Hz
- Coarse filter unit
- Fully automatic electronic load compensation
- Electronic zero point regulation with adjustable stiffness
- Automatic centering of the armature
- High cross-axial stiffness
- Minimum maintenance effort
- Made in Germany
- Servicehotline



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Modal Vibration Test System TV 5220-M

TECHNICAL PARAMETERS Amplifier BDA 1300-ET

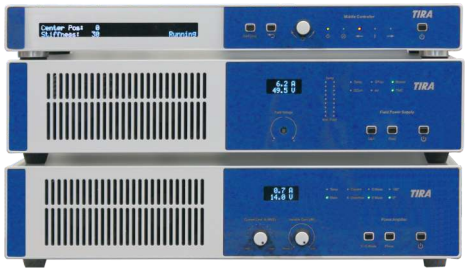
Output power$_{RMS}$, max.	1300 VA
Frequency range	2 - 25000 Hz
Voltage-/Current mode	yes/no
Voltage$_{RMS}$, max.	72 V
Current$_{RMS}$, max.	18 A
Signal input voltage$_{PK}$	3.5 V
Distortion (THD, at frequency range 40 Hz to 1 kHz)	< 0.1 %
Signal to noise ratio	> 100 dB
Field power supply (FPS)	yes (external)
Field voltage, max.	69 V
Field current, max.	9 A
Total mass (Amplifier+FPS+TMC)	43 kg
Dimensions (Amplifier+FPS+TMC, WxHxD)	440 x 260 x 500 mm
Power supply Amplifier+TMC (Standard)	1~ / N / PE 230 V±5% 50 Hz, CEE 7/7
Power supply FPS+Blower (Standard)	1~ / N / PE 230 V±5% 50 Hz, CEE 7/7
Recommended fuse protection (Standard)	each one 16 A slow
Max. power consumption at 230 V (Amplifier)	1.3 kVA
Max. power consumption at 230 V (FPS+blower)	1.6 kVA
Max. power consumption at 230 V (TMC)	0.1 kVA
Interlocks:	Overload, temperature, clipping

Features:
- High Signal to noise ratio of > 100 dB
- Monitoring output of voltage and current

TECHNICAL PARAMETERS Cooling blower TB 0140

Volume flow rate	max. 140 m³/h
Total pressure difference	max. 150 mbar
Power	1.1 kW
Frequency	50 Hz
Hose diameter	50 mm
Hose length (Std.)	5 m
Total mass	16 kg
Dimensions (WxHxD)	286 x 302 x 292 mm
Sound pressure level, max.	max. 63 dB(A)
Power supply (standard)	by Field power supply (FPS)
Max. current consumption at 400 V	7.3 A

Options:
Silencer TB 0140-SI (Noise reduction up to 8 dB(A))
  Dimensions (LxD): 308 x 82 mm
  Mass: 0.2 kg
Acoustic enclosure TB 0140-AE (Noise reduction 15 - 23 dB(A))
  Dimensions (WxHxD): 650 x 760 x 860 mm
  Mass: 45 kg
Hose length according to customers request (up to 10 m)



Zero point regulation, Field power supply and Amplifier



Cooling blower TB 0140



Silencer TB 0140-SI (optional)



Acoustic enclosure TB 0140-AE (optional)

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