Vibration Test System TV 5220-120

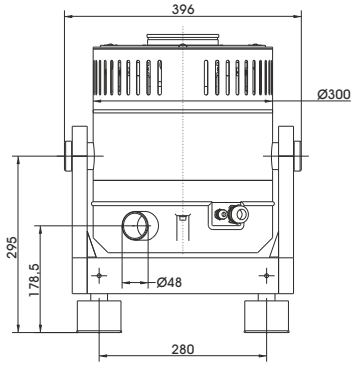
S 5220-120 (Example drawing) Dimensions in mm

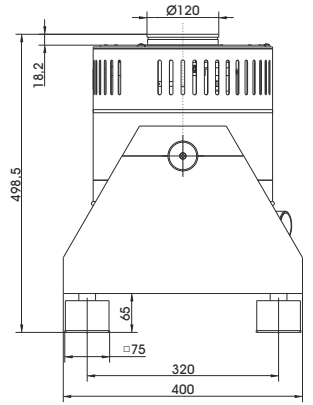
TECHNICAL PARAMETERS Vibration exciter S 5220-120

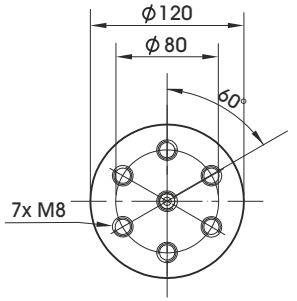
Rated peak force $Sine_{pk}$/$Random_{RMS}$[1]/$Shock_{pk}$[2]	1000/650/1500 N
Frequency range	2 - 6500 Hz
Main resonance frequency	>4800 Hz
Max. displacement Peak-Peak	25.4 mm
Max. velocity $Sine_{pk}$/$Random_{RMS}$/$Shock_{pk}$	1.5/1.5/2.0 m/s
Max. acceleration Sine/Random/Shock	60/35/90 g
Suspension stiffness	22 N/mm
Effective moving mass (±5%)	1.75 kg
Max. payload	20 kg
Total mass	122 kg
Magn. stray field without/with degaussing[3]	<8.5/<1.5 mT
Armature diameter	120 mm
Min. required compressed air supply	600 kPa
Interlocks	Field coil temperature, displacement, cooling air, overcurrent, compressed air

1) Random force according to ISO 5344:2004
2) Theoretical maximum shock value. Depends on payload, amplifier, shock and shock width
3) measured at 150 mm above armature
For long-term tests, the load must be reduced to 80 %. Continuous operation at maximum load can cause damage.









Armature (Standard)

SCOPE OF DELIVERY, OPTIONS AND FEATURES OF THE SYSTEM

Scope of delivery:
- Vibration exciter
- Trunnion mount
- Power amplifier
- Field power supply (FPS)
- Cooling blower
- Connection cable (5 m)
- Power cables (each 1.5 m) for amplifier and FPS (CEE 7/7 connector)
- Blower hose ø50 mm (5 m)
- Compressed-air hose NW 7,2 (Standard) (3 m)

Options:
- Different thread inserts in the armature at customer request
- Degauss kit to reduce stray magnetic field
- Squeak&Rattle (Silent operation without blower)
- 19" Rack for integrating of amplifier/FPS
- Thermobarrier (-40°C to +140°C)
- Chamber leadthrough
- 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 pneumatic load compensation
- Automatic centering of the armature
- High cross-axial stiffness
- Minimum maintenance effort
- Made in Germany
- Servicehotline

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Subject to modifications

Vibration Test System TV 5220-120

TECHNICAL PARAMETERS Amplifier BDA 1300-E

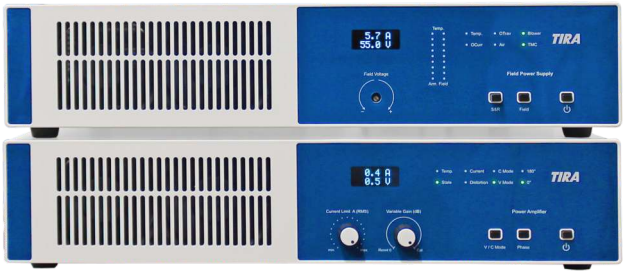
Output power$_{RMS}$, max.	1300 VA
Frequency range	DC - 25000 Hz
Voltage-/Current mode	yes/yes
Voltage$_{RMS}$, max.	72 V
Current$_{RMS}$, max.	18 A
Signal input voltage$_{PK}$	3.5 V
Distortion (THD, at frequency range 40 Hz to 1 kHz)	< 0.1 %
Signal to noise ratio	> 100 dB
Field power supply (FPS)	yes (external)
Field voltage, max.	69 V
Field current, max.	9 A
Total mass (Amplifier+FPS)	39 kg
Dimensions (Amplifier+FPS, WxHxD)	440 x 200 x 500 mm
Power supply Amplifier (Standard)	1~ / N / PE 230 V±5% 50 Hz CEE 7/7
Power supply FPS (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
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)

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)



Amplifier and Field power supply (FPS)



Cooling blower TB 0140



Silencer TB 0140-SI (optional)



Acoustic enclosure TB 0140-AE (optional)

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