

TECHNICAL PARAMETERS Vibration exciter S 59349/AIT-440

Rated peak force Sine _{pk} /Random _{RMS} ¹ /Shock _{pk} ²	49500/48000/148500 N
Frequency range	5 - 2500 Hz
Main resonance frequency	2000 Hz
Max. displacement Peak-Peak ³	50.8 mm
Max. velocity Sine/Random/Shock	2.0/2.0/3.0 m/s
Max. acceleration Sine/Random/Shock	100/75/224 g
Suspension stiffness	200 N/mm
Effective moving mass	48 kg
Max. payload	910 kg
Total mass	4550 kg
Magn. stray field std./low degaussing ⁴	< 1.5/< 0.8 mT
Armature diameter	440 mm
Min. required compressed air supply	600 kPa
Interlocks	Temperature, displacement, cooling air, overcurrent, compressed air

1) Random force according to ISO 5344:2004

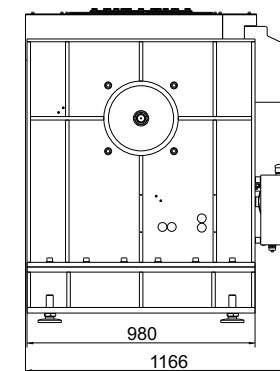
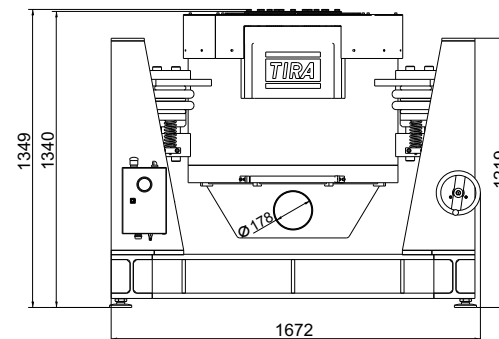
2) Theoretical maximum shock value. Depends on payload, amplifier, shock and shock width

3) optional displacement of 76.2 mm (3 inch) for transient applications, 63.5mm (2.5") for Sine and Random.

Impact by moving to static mass and frequency is possible

4) measured at 150 mm above armature inserts

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:

- Vibration exciter 49.5 kN
- Trunnion mount with integrated vibration isolation (AIT)
- Power amplifier 60 kVA
- Cooling blower with frequency converter
- Connection cables (each 10 m)
- Power cables (each 10 m) for amplifier (direct connection) and cooling blower (CEE 63 connector)
- Blower hose ø175 mm (5 m)
- Compressed-air hose NW 7,2 (Standard) (5 m)

Options:

- 3 inch (76.2 mm) displacement
- Different hole pattern of armature (different pitch diameter and/or thread inserts) at customers request
- Dual Bearing armature
- Low degaussing kit to further reduce stray magnetic field
- Airglide-option (Shaker movable on air cushions)
- Squeak&Rattle (Silent operation without blower)
- Thermobarrier (-40°C to +140°C)
- Chamber leadthrough
- Climatic chamber support kit
- Remote control (Software)
- Silencer for cooling blower (Noise reduction 9 - 15 dB(A))
- Acoustic enclosure for cooling blower (Noise reduction 5 - 23 dB(A))
- Water-cooled acoustic enclosure for cooling blower (Noise reduction 30 dB(A))
- Cable extension
- Factory acceptance test

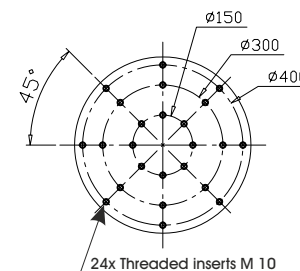
Options:



- Operation with temperature-controlled cooling blower (and optional with variable field strength)
- ASM-Mode (Auto Shutdown Manager)

Features:

- AIT-trunnion mount with integrated vibration isolation < 3 Hz
- Coarse filter unit
- Fully automatic pneumatic load compensation
- AIT fixable
- Automatic centering of the AIT-System and the armature
- Degauss kit to reduce stray magnetic field
- Made in Germany
- Servicehotline



Armature 440 (Standard)

TECHNICAL PARAMETERS Amplifier A 2 11 11 105

Output power _{RMS}	60000 VA
Frequency range	DC - 5 kHz
Voltage _{RMS} , max.	±212 V
Current _{RMS} , max.	500 A
Signal input voltage	10 V
Total Harmonic Distortion (at 70A _{RMS} , 200 Hz)	< 0.2 %
Signal to noise ratio	> 80 dB
Field voltage	112 V
Field current	100 A
Total mass	860 kg
Dimensions (WxHxD)	1200 x 1740 x 800 mm
Power supply (Standard)	3~ / N / PE 400 V±5% 50 Hz Direct connection (Terminal block)
Recommended fuse protection (Standard)	80 A slow
Max. power consumption at 400 V	52 kVA
Interlocks:	Overload, Temperature, Displacement, Cooling air, Compressed air, Phase monitoring, Emergency stop
Features:	
Field supply integrated	
Mains switch and integrated line filter	
Lo-Field/Hi-Field (Energy-saving mode)	
Field voltage/Field current variable according to customer spec.	
4 Sigma peak current	
Color Touch Screen	

TECHNICAL PARAMETERS Cooling blower TB 7/FUK/20

Max. volume flow rate	5820 m³/h
Max. total pressure difference	16 kPa
Motor output	20 kW
Max. frequency	105 Hz
Hose diameter	175 mm
Hose length (Std.)	5 m
Total mass	131 kg
Dimensions (WxHxD)	625 x 773 x 602 mm
Max. sound pressure level	105 dB(A)
Frequency converter (fixation to wall):	
Mass	10 kg
Dimensions (WxHxD)	300 x 300 x 250 mm
Power supply (Standard)	3~ / PE 400 V±5% 50 Hz CEE 63
Recommended fuse protection (Standard)	50 A slow
Max.current consumption at 400 V	38 A
Options:	
Silencer TB 7/FUK-SI (Noise reduction 9 - 15 dB(A))	
Dimensions (LxD): 1120 x 280 mm	
Mass: 9.2 kg	
Acoustic enclosure TB 7/FUK-AE (Noise reduction 5 - 23 dB(A))	
Dimensions (WxHxD): 1250 x 1393 x 1470 mm	
Mass: 103 kg	
Water-cooled acoustic enclosure WWT (Noise reduction 30 dB(A))	
Dimensions (WxHxD): 1500 x 2080 x 1200 mm	
Mass: 800 kg	
Hose length according to customers request (up to 10 m)	



Frequency converter (enclosure)



Cooling blower TB 7/FUK/20



Silencer TB 7/FUK-SI (optional)



Acoustic enclosure TB 7/FUK-AE (optional)