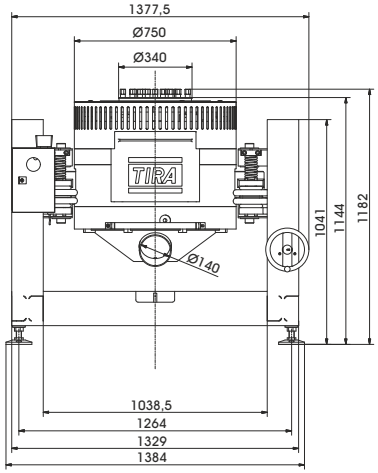
Vibration Test System TV 59322/*-340

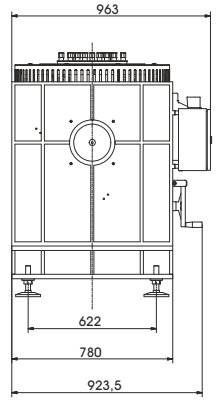
S 59322/AIT-340 (Example drawing) Dimensions in mm

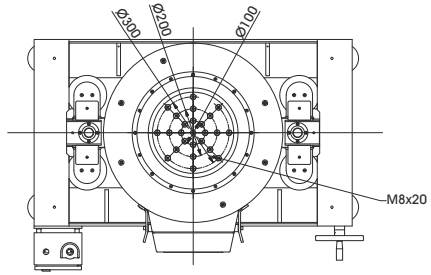
TECHNICAL PARAMETERS Vibration exciter S 59322/*-340

Rated peak force Sine$_{pk}$/Random$_{RMS}$[1]/Shock$_{pk}$[2]	22000/17000/66000 N
Frequency range	5 - 3000 Hz
Main resonance frequency	> 2250 Hz
Max. displacement Peak-Peak	63.5/63.5/76.2 mm
Max. velocity Sine$_{pk}$/Random$_{RMS}$/Shock$_{pk}$	2.0/2.0/3.5 m/s
Max. acceleration Sine/Random/Shock	80/55/200 g
Suspension stiffness	150 N/mm
Effective moving mass	22.0 kg
Max. payload	300 kg
Total mass with trunnion RIT/AIT*	1750/2000 kg
Magn. stray field[3]	<1.5 mT
Armature diameter	340 mm
Required compressed air supply	Min. 600 kPa
Interlocks	Temperature, displacement, cooling air, overcurrent, compressed air









1) System specified 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 inserts
For long-term tests, the load must be reduced to 80 %. Continuous operation at maximum load can cause damage.
*RIT or AIT (explanation see TIRA selection guide page 7)

SCOPE OF DELIVERY, OPTIONS AND FEATURES OF THE SYSTEM

Scope of delivery:
Vibration exciter
Trunnion mount (RIT or AIT)*
Power amplifier
Cooling blower
Connection cables (each 10 m)
Power cables (10 m)
  for amplifier (CEE 63 connector)
  and blower (CEE 32 connector)
Blower hose ø150 mm (5 m)
Compressed-air hose NW 7,2 (Standard) (5 m)

Options:
AIT-trunnion frame (see illustration)
  with integrated vibration isolation
RIT-trunnion frame

Options:
Different hole pattern of armature
  (different pitch diameter and/or thread inserts)
  at customers request
Squeak&Rattle (Silent operation without blower)
Wheels&Rails (incl. 3m rails)
Airglide-option (Shaker movable on air cushions)
Thermobarrier (-40°C to +140°C)
Chamber leadthrough
Climatic chamber support kit
Remote control (Software)
ASM-Mode (Auto Shutdown Manager)
Silencer
  for cooling blower (Noise reduction 9 - 15 dB(A))
Acoustic enclosure
  for cooling blower (Noise reduction 5 - 23 dB(A))
Cable extension
Factory acceptance test

Options:
TIRA EMS Energy Management System
Operation with temperature-controlled
  cooling blower (and optional with variable
  field strength)

Features:
Vibration isolation < 3 Hz (AIT)
  < 6 Hz (RIT)
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

TIRA GmbH Eisfelder Str. 23/25, 96528 Schalkau, Germany • Phone: +49 36766 280-0 • Fax: +49 36766 280-99 • Internet: www.tira-gmbh.de • Email: st@tira-gmbh.de

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Subject to modifications

TIRA Vibration Test Systems TV 59322/*-340

Vibration Test System TV 59322/*-340

TECHNICAL PARAMETERS Amplifier Octopus 42M

Output power, max.	26000 VA
Frequency range	DC - 5 kHz
$Voltage_{RMS}$, max.	212 V
$Current_{RMS}$, max.	200 A
Signal input $voltage_{PK}$	±10 V
Total Harmonic Distortion (THD, at $70A_{RMS}$, 200 Hz)	< 0.2 %
Signal to noise ratio	> 85 dB(A)
Field voltage	140 V
Field current	62 A
Total mass	600 kg
Dimensions (W x H x D)	1200 x 1800 x 800 mm
Power supply (Standard)	3~ / N / PE 400 V±5% 50 Hz, CEE 63
Recommended fuse protection (Standard)	63 A slow
Max. power consumption at 400 V	29 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/11

Max. volume flow rate	1920 m^3/h
Max. total pressure difference	16 kPa
Motor output	11 kW
Max. frequency	105 Hz
Hose diameter	150 mm
Hose length (Std.)	5 m
Total mass	113 kg
Dimensions (W x H x D)	625 x 775 x 602 mm
Max. sound pressure level	102 dB(A)
Switch box (fixation to wall):	
Mass	10 kg
Dimensions (W x H x D)	300 x 300 x 250 mm
Power supply (Standard)	3~ / PE 400 V±5% 50 Hz, CEE 32
Recommended fuse protection (Standard)	32 A slow
Max. current consumption at 400 V	25 A

Options:
Silencer TB 7/FUK-SI (Noise reduction 9 - 15 dB(A))
Dimensions (L x D): 1120 x 280 mm
Mass: 9.2 kg
Acoustic enclosure TB 7/FUK-AE (Noise reduction 5 - 23 dB(A))
Dimensions (W x H x D): 1250 x 1393 x 1470 mm
Mass: 103 kg
Water-cooled acoustic enclosure WWT (Noise reduction 30 dB(A))
Dimensions (W x H x D): 1500 x 2080 x 1200 mm
Mass: 800 kg
Hose length according to customers request (up to 10 m)




Switch box (blower)


Cooling blower TB 7/FUK/11


Silencer TB 7/FUK-SI (optional)


Acoustic enclosure TB 7/FUK-AE (optional)

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