

TIRA vib

Vibration generator

TIRAvib 59320

TIRAvib 59327



➤ **Model TV 59320:**

Sine: 20000 N (2038 kgf);
Random: 20000 N (2038 kgf);
Shock: 40000 N (4077 kgf);
Displacement: 50.8mm

➤ **Model TV 59327:**

Sine: 26700 N (2722 kgf);
Random: 26700 N (2722 kgf);
Shock: 53400 N (5444 kgf);
Displacement: 50.8mm

➤ **automatic load compensation**

➤ **air cooled**

DESCRIPTION

The vibration generators TV 59320 and TV 59327 reproduce environmental conditions over a very wide frequency band.

The vibration generator operates in sine, random and shock mode under controlled conditions. Several features make the vibration generators an ideal testing instrument for use in the field of quality assurance and R&D in laboratories.

TIRA vibration generators are designed for continuous operation. They are fitted with a light weight rugged magnesium armature and a tested and proven suspension system which provides excellent lateral and rotational restraint as well as axial stiffness.

A unique pneumatic load support system guarantees a full nominal displacement with a maximum permitted vertical load of 270 kg. Several optional features, such as external load supports and horizontal oil film slip tables, make the vibration generator universal even to test objects of large dimensions in three axis.

The LS version of the generator enables Shock-testing of up to 51 mm displacement to be carried out.

TIRA's fully equipped package enables customers to test under all national and international standards such as DIN, ASTM, BS, MIL, IEC, etc...

Standard: **RIT** Rigid Isolated Trunnion

Option: **AIT** Air Isolated Trunnion

POWER AMPLIFIER

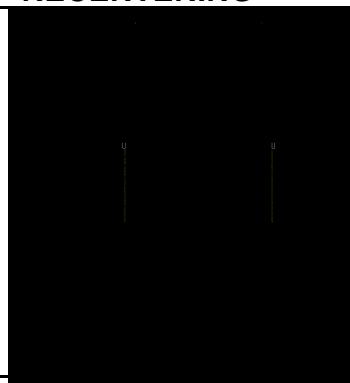
FOR TIRAvib 59320

sine continuous rating 24000 VA
voltage 110 V
current 220 A
distortion < 1 %
weight 350 kg
size (WxHxD) 600x2100x850mm

FOR TIRAvib 59327

sine continuous rating 36000 VA
voltage 110 V
current 330 A
distortion < 1 %
weight 350 kg
size (WxHxD) 600x2100x850mm

PNEUMATIC RECENTERING



STANDARD SUPPLY

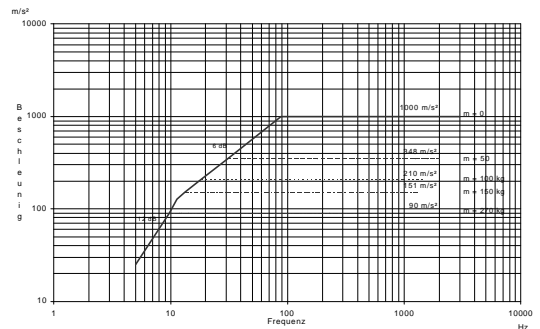
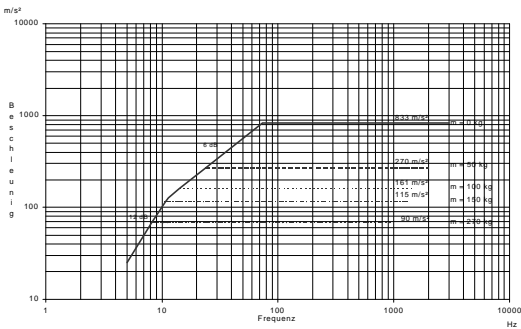
- Automatic Load compensation
- Air isolation-natural frequency < 3.5 Hz
- Air filter
- Trunnion with high mobility (180°)
- Cooling blower

Technical Specification

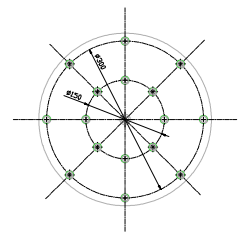
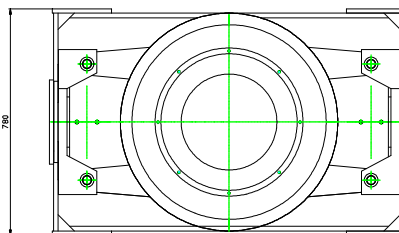
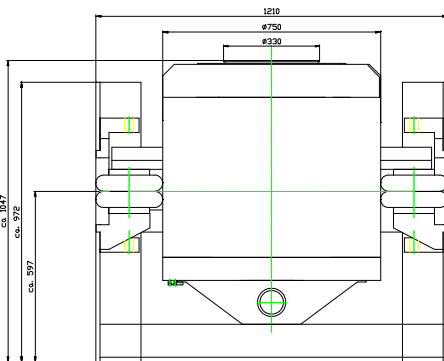
		TIRAvib 59320	TIRAvib 59327
Rated peak force [N]	Sine/Random/Shock	20000 / 20000 / 40000	26700 / 26700 / 53400
Frequency range		DC-3000	DC-3000
Max. rated travel [mm]		50.8	50.8
Max. velocity [m/s]	Sine/Random/Shock	1.8 / 1.8 / 2.5	1.8 / 1.8 / 2.5
Max. acceleration [g]	Sine/Random/Shock	85 / 85 / 170	102 / 102 / 204
Rated current [A]		200	300
Nominal impedance [W]		0.2	0.135
Suspension stiffness [N/mm]		150	150
Effective moving mass [kg]		24	26.7
Max. test load [kg]		410	410
Main resonance frequency [Hz]		> 2500	> 2500
Weight with trunnion [kg]		2800	2800
Stray magnetic field [mT]	without/with degauss kit	< 20 / 0.5	< 20 / 0.5
Cooling [m³/h]		1110	1110
Interlocks		Temperature Overtravel Airflow	Temperature Overtravel Airflow

PERFORMANCE DIAGRAM TV 59320

PERFORMANCE DIAGRAM TV 59327



DIMENSIONS



MANUFACTURER

PRODUCT RANGE



- ◆ MEASURING
- ◆ TESTING
- ◆ BALANCING
- ◆ CNC

- Shaker 9 N - 245 kN
- Servohydraulic up to 1000 kN
- Longstroke systems up to 600 mm
- Amplifier, digital / analog
- Modal shaker
- Vibrations control system
- Sine, Random, Shock, Mixed mode
- Oil film slip table for horizontal test
- Climate and temperature system
- Headexpander and special construction

Eisfelder Straße 23-25
 D-96528 Schalkau
 Telefon +49 36766 / 280-0
 Telefax +49 36766 / 280-99
 E-mail: ST@tira-gmbh.de
 www: www.tira-gmbh.de

