Vibration Test System TV 55240/LS-180

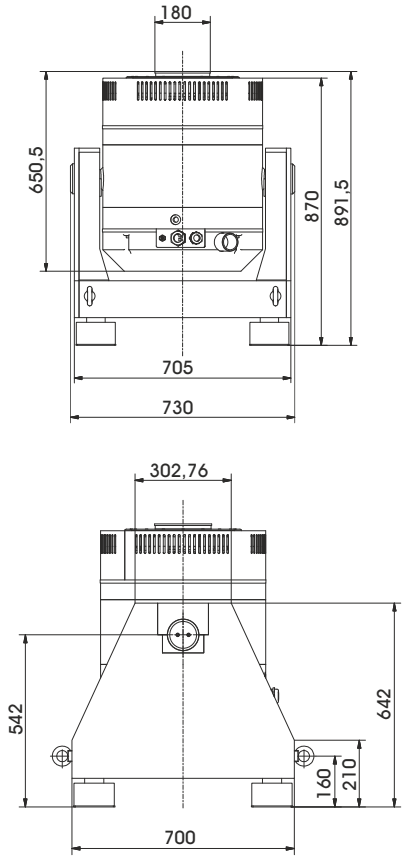
TECHNICAL PARAMETERS Vibration exciter S 55240/LS-180

Rated peak force Sine$_{pk}$/Random$_{RMS}$[1]/Shock$_{pk}$[2]	4000/3500/12000 N
Frequency range	2 - 3000 Hz
Main resonance frequency	>3000 Hz
Max. displacement Peak-Peak	50.8 mm
Max. velocity Sine$_{pk}$/Random$_{RMS}$/Shock$_{pk}$	2.0/2.0/2.4 m/s
Max. acceleration Sine/Random/Shock	60/50/150 g
Suspension stiffness	50 N/mm
Effective moving mass (±5%)	6.8 kg
Max. payload mass	250 kg
Total mass	700 kg
Magn. stray field Std./low degaussing[3]	<1.5/<0.8 mT
Armature diameter	180 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.



S 55240/LS-180 (Example drawing) Dimensions in mm



Armature 180 (Standard)

SCOPE OF DELIVERY, OPTIONS AND FEATURES OF THE SYSTEM

Scope of delivery:
- Vibration exciter
- Trunnion mount
- Power amplifier
- Cooling blower
- Connection cable (5 m)
- Power cable (5 m) for amplifier (CEE 32 connector)
- Blower hose ø60 mm (5 m)
- Compressed-air hose NW 7,2 (Standard) (3 m)

Options:
- Different thread inserts in the armature at customer request
- Low degaussing kit to further reduce stray magnetic field
- Squeak&Rattle (Silent operation without blower)
- Wheels&Rails (incl. 3m rails)
- Thermobarrier (-40°C to +140°C)
- Chamber leadthrough
- Climatic chamber support kit
- Remote control (Software)
- Silencer for cooling blower (Noise reduction up to 6 dB(A))
- Acoustic enclosure for cooling blower (Noise reduction 15 - 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)
- ASM-Mode (Auto Shutdown Manager)

Features:
- Vibration isolation < 6 Hz
- Coarse filter unit
- Fully automatic pneumatic load compensation
- Automatic centering of the armature
- Degauss kit to reduce stray magnetic field
- Made in Germany
- Servicehotline

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Vibration Test System TV 55240/LS-180

TECHNICAL PARAMETERS Amplifier Chameleon

Max. output power$_{RMS}$ (factory-set)	15000 VA
Frequency range	DC - 5 kHz
Voltage$_{RMS}$, max.	212 V
Current$_{RMS}$, max. (factory-set)	40-100 A
Signal input voltage$_{PK}$	±10 V
Total Harmonic Distortion (THD, at 70A$_{RMS}$, 200 Hz)	< 0.2 %
Signal to noise ratio	> 85 dB
Field voltage (factory-set)	140-280 V
Field current (factory-set)	6-8 A
Total mass	330 kg
Dimensions (WxHxD)	600 x 1740 x 800 mm
Power supply (Standard)	3~ / N / PE 400 V±5% 50 Hz, CEE 32
Recommended fuse protection	32 A slow
Max. power consumption at 400 V (incl. blower)	17 kVA
Interlocks:	Overload, Temperature, Displacement, Cooling air, Compressed air, Phase monitoring, Emergency stop

Features:
Field supply integrated
Field voltage/Field current variable
according to customer spec.
4 Sigma peak current
Mains switch and integrated line filter
Color Touch Screen

TECHNICAL PARAMETERS Cooling blower TB 0310

Volume flow rate	max. 315 m³/h
Total pressure difference	max. 290 mbar
Power	4 kW
Frequency	50 Hz
Hose diameter	60 mm
Hose length (Std.)	5 m
Total mass	42 kg
Dimensions (WxHxD)	382 x 384 x 432 mm
Sound pressure level, max.	max. 69 dB(A)
Power supply (standard)	by amplifier rack
Max. current consumption at 400 V	7.2 A

Options:
Silencer TB 0310-SI (Noise reduction up to 6 dB(A))
Dimensions (LxD): 308 x 82 mm
Mass: 0.58 kg
Acoustic enclosure TB 0310-AE (Noise reduction 15 - 23 dB(A))
Dimensions (WxHxD): 860 x 760 x 650 mm
Mass: 55 kg
Hose length according to customers request (up to 10 m)




Cooling blower TB 0310


Silencer TB 0310-SI
(optional)


Acoustic enclosure TB 0310-AE
(optional)

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