

## TECHNICAL PARAMETERS

Rated peak force Sine <sub>pk</sub> /Random <sup>1</sup> <sub>RMS</sub> /Shock <sub>pk</sub> <sup>2</sup>	140000/130000/420000 N
Frequency range	5 - 3000 Hz
Main resonance frequency	2400 Hz
Max. displacement Sine/Random/Shock (Pk-Pk) <sup>3</sup>	63.5/63.5/76.2 mm
Max. velocity Sine/Random/Shock	2.0/2.0/4.0 m/s
Max. acceleration Sine/Random	200/180 g
Max. acceleration Shock (at payload)	3 ms: 300 g (35 kg) 6 ms: 100 g (230 kg) 11 ms: 100 g (80 kg)
Suspension stiffness	99 N/mm
Effective moving mass	53 kg
Max. payload	610 kg
Magnetic stray field <sup>4</sup>	< 1.5 mT
Armature diameter	480 mm
Required compressed air supply	Min. 600 kPa
Total mass	5300 kg
Interlocks: Temperature, displacement, water flow rate, overcurrent, compressed air, conductance	

1) Random force according to ISO 5344

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

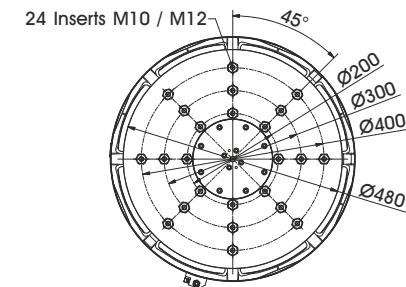
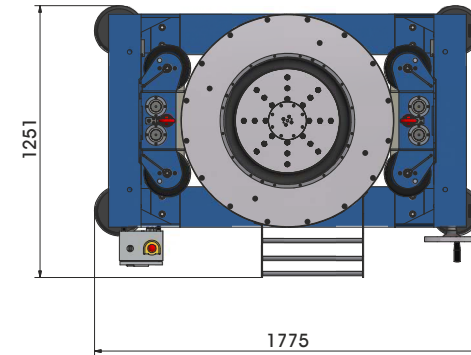
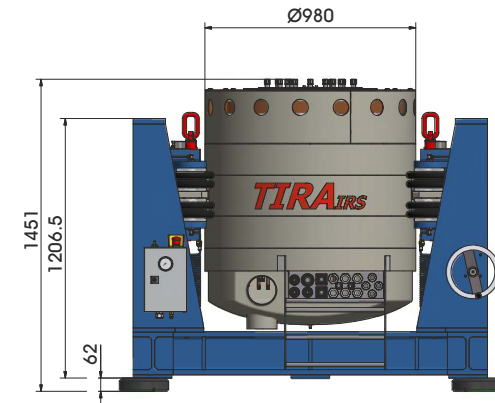
3) Impact by moving to static mass and frequency is possible

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

<p><b>Scope of delivery:</b>          Vibration exciter S 69440          Trunnion mount          with integrated vibration isolation (AIT)          Power amplifier          Field power unit          Cooling unit with integrated hydraulic unit          Connection cables (each 10 m)          Water hoses with          self-sealing couplings (each 10 m)          Hydraulic hoses with          self-sealing couplings (each 10 m)          Cooling blower          Connection box for blower          Power cable (10 m)          for cooling blower (CEE 63 connector)          Blower hose ø175 mm (5 m)          Compressed-air hose NW 7.2 (Standard)          (10 m)</p>	<p><b>Options:</b>          Different hole pattern of armature (different pitch diameter and/or thread inserts) at customers request          Thermo barrier (-40°C to +140°C)          Chamber leadthrough          Climatic chamber support kit          Remote control (Software)          ASM-Mode (Auto-Shutdown-Manager)          Cable/Hose extension          Factory acceptance test          ASG-K - Automatic Rotation System          ERD-Tool - Extended Remote Diagnostic Tool          AIT Resonance System          Low Degauss Kit</p>	<p><b>Features:</b>          Vibration isolation &lt; 3 Hz (AIT) (with option AITRS 2-3 Hz)          Fully automatic pneumatic load compensation          Low-friction hydrostatic bearing (Dual Bearing)          AIT fixable          Automatic centering of the AIT-System and the armature          Degauss kit to reduce stray magnetic field          Shaker-water circuit with overpressure          Automatic permanent monitoring of conductance          Integrated mains switch and line filter          Energy-saving-mode          4 Sigma peak current          Made in Germany          Servicehotline</p>
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Armature 480 (Standard)

## TECHNICAL PARAMETERS Power Amplifier A 6 00 11 210 + Field power supply

Output power <sup>1</sup> <sub>RMS</sub>	120000 VA	Interlocks: Overload, Temperature, Displacement, Air supply, Compressed air, Phase monitoring, Emergency stop, Water flow rate, Conductance
Frequency range	DC - 5 kHz	
Voltage <sub>RMS</sub> <sup>1</sup> max.	212 V	<b>Features:</b> Mains switch and integrated line filter Low/Mid/High-Field (Energy-saving mode) Field voltage/Field current variable according to customer spec. 4 Sigma peak current Color-Touchscreen
Current <sub>RMS</sub> <sup>1</sup> max.	1000 A	
Signal input voltage <sub>PK</sub>	±10 V	
Total Harmonic Distortion (at 70A <sub>RMS</sub> <sup>1</sup> , 200 Hz)	< 0.2 %	
Signal to noise ratio	> 80 dB	
Power supply - Amplifier (Standard)	3~ / N / PE 400 V±5% 50 Hz Direct connection (Terminal block)	
Power supply - Field power supply (Standard)	3~ / N / PE 400 V±5% 50 Hz Direct connection (Terminal block)	
Max. power consumption at 400 V		
Amplifier (incl. cooling unit)	60 kVA	
Field power supply	40 kVA	
Recommended fuse protection Amplifier (Standard)	225 A slow (for full extension)	
Recommended fuse protection FPS (Standard)	125 A slow	
Dimensions - Amplifier (WxHxD)	1800 x 2200 x 900 mm	
Dimensions - Field power supply (WxHxD)	600 x 1740 x 850 mm	
Total mass - Amplifier	1300 kg	
Total mass - Field power supply	500 kg	

1) Values in connection with vibration exciter S 69440



Amplifier



Field power supply

## TECHNICAL PARAMETERS Cooling unit C 59412

<b>Environmental conditions:</b>	
Temperature	5 - 30 °C
Relative humidity	10 - 80 %
Energy transfer	max. 3 kW
<b>Process water:</b>	
Temperature	5 - 15 °C
Volume flow at max. supply temperature	10 m³/h
Working pressure: supply - static	≤ 8 bar (≤ 800 kPa)
Working pressure: dynamic differential pressure	≥ 3 bar (≥ 300 kPa)
Dissipated heat flow	max. 110 kW
Nominal width of supply pipes	R 1 1/2 IT (40 mm)
pH value	7 ± 1
Dimensions of dirt particles	< 25 µm
Water hardness (total/carbonate)	< 1.4 mmol/l / < 0.9 mmol/l
Dimensions (WxHxD)	808 x 2152 x 1092 mm
Total mass	470 kg

## 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)
Connection box (fixation to wall):	
Mass	10 kg
Dimensions (WxHxD)	300 x 300 x 250 mm
Power supply (variable)	3~ / PE 400 V±5% 50 Hz CEE 63
Recommended fuse protection (Standard)	50 A slow
Max.current consumption at 400 V	38 A



Cooling unit C 59412



Cooling blower TB 7/FUK/20  
with frequency converter



Connection box  
with main switch (for blower)