

TECHNICAL PARAMETERS

Rated peak force Sine _{pk} /Random _{RMS} ¹ /Shock _{pk} ²	1 68000/1 68000/504000 N
Frequency range	5 - 2000 Hz
Main resonance frequency	1700 Hz
Max. displacement Sine/Random/Shock (Pk-Pk) ³	63.5/63.5/76.2 mm
Max. velocity Sine/Random/Shock	2.0/2.0/3.5 m/s
Max. acceleration Sine/Random/Shock	100/75/300 g
Suspension stiffness	250 N/mm
Effective moving mass	125 kg
Max. payload	1300 kg
Magnetic stray field ⁴	1.5 mT
Armature diameter	590 mm
Required compressed air supply	Min. 700 kPa
Total mass	8450 kg
Interlocks	Temperature, displacement, water flow rate, differential pressure, overcurrent, compressed air, conductance

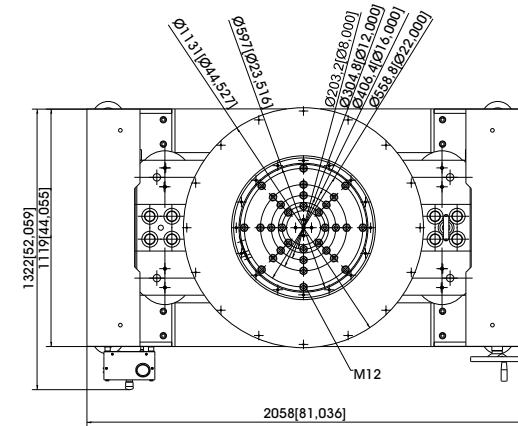
1) Random force according to ISO 5344:2004

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

Scope of delivery:

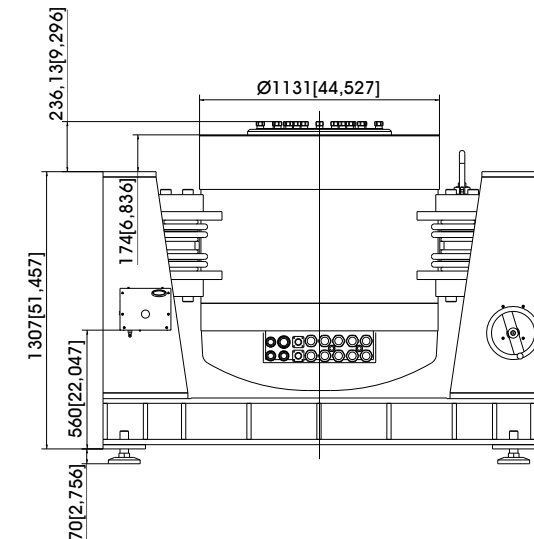
- Vibration exciter S 59420
- Trunnion mount with integrated vibration isolation (AIT)
- Power amplifier
- Field power unit
- Cooling unit with integrated hydraulic unit
- Connection cables (each 10 m)
- Water hoses with self-sealing couplings (each 10 m)
- Hydraulic hoses with self-sealing couplings (each 10 m)
- Compressed-air hose NW 7.2 (Standard) (10 m)

Options:

- Different hole pattern of armature (different pitch diameter and/or thread inserts) at customers request
- Thermobarrier (-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
- Upgradable up to a peak force of 200 kN

Features:

- Vibration isolation < 3 Hz (AIT)
- 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



TECHNICAL PARAMETERS Power Amplifier A 6 00 11 378 + Field power supply

Output power _{RMS}	195000 VA
Frequency range	DC - 5 kHz
Voltage _{RMS} , max.	±212 V
Current _{RMS} , max.	1800 A
Signal input voltage _{RMS}	10 V
Total Harmonic Distortion (at 70A _{RMS} , 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)	244 kVA
Field power supply	98 kVA
Recommended fuse protection Amplifier (Std.)	450 A slow (for full extension)
Recommended fuse protection FPS (Standard)	200 A slow
Dimensions - Amplifier (WxHxD)	2400 x 2200 x 900 mm
Dimensions - Field power supply (WxHxD)	1200 x 1740 x 850 mm
Total mass - Amplifier	2500 kg
Total mass - Field power supply	1135 kg

Interlocks: Overload, Temperature, Displacement, Compressed air, Phase monitoring, Emergency stop, Differential pressure, Water flow rate, Conductance

Features:

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-Touchscreen
Upgradable by modular design



Amplifier (Illustration similar)



Field power supply

TECHNICAL PARAMETERS Cooling unit C 59430

Environmental conditions:	
Temperature	5 - 30 °C
Relative humidity	10 - 80 %
Energy transfer	max. 3 kW
Process water:	
Temperature	5 - 15 °C
Volume flow at max. supply temperature	24 m³/h (for full extension)
Working pressure: supply - static	≤ 10 bar (≤ 1000 kPa)
Working pressure: dynamic differential pressure	≥ 3 bar (≥ 300 kPa)
Dissipated heat flow	max. 220 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)	820 x 2150 x 920 mm
Total mass	470 kg

Features:

Closed system --> No pollution and no water loss by evaporation
The system works with a higher pressure --> No cavitation interferences at the measuring signal
Manometers and flow meters at several places within the circuits
Integrated conductance monitoring and demineralisation
Fine filter with pollution monitoring
Reduction of water consumption at part load by controlling the process water flow
Self-sealing couplings (free from leakage)
Optional: Hose length according to customer specs (up to 20 m)
Optional: Monitoring of data, warnings and error messages at the PC

