

System Performance

SEV 440 Series Shaker, DSA Series Amplifier	SEV 440 – DSA 48K	SEV 440 – DSA 56K	SEV 440 – DSA 60K	SEV 440 – DSA 80K
Armature Diameter	440 mm	440 mm	440 mm	440 mm
Sine Force (peak)	4000 kgf (8800 lbf, 40 kN)	4900 kgf (10800 lbf, 49 kN)	5000 kgf (11000 lbf, 50 kN)	6000 kgf (13200 lbf, 60 kN)
Random Force (rms)	4000 kgf (8840 lbf, 40 kN)	4900 kgf (10800 lbf, 49 kN)	5000 kgf (11000 lbf, 50 kN)	6000 kgf (13200 lbf, 60 kN)
Shock Force (rms)	8000 kgf (17600 lbf, 80 kN)	9800 kgf (21600 lbf, 98 kN)	10000 kgf (22000 lbf, 100 kN)	12000 kgf (26400 lbf, 120 kN)
Acceleration (sine)	80 g	95 g	100 g	100 g
Velocity (sine peak)	1.8 m/sec	1.8 m/sec	1.8 m/sec	1.8 m/sec
Displacement (pk-pk)	51 mm/63 mm* (2 in/2.5 in*)	51 mm/63 mm* (2 in/2.5 in*)	51 mm/63 mm* (2 in/2.5 in*)	51 mm/63 mm* (2 in/2.5 in*)
Axial Resonance ($\pm 5\%$)	2100 Hz	2100 Hz	2100 Hz	2000 Hz
Useful Frequency Range	DC to 2400 Hz	DC to 2300 Hz	DC to 2300 Hz	DC to 2000 Hz
Protection Interlocks	Mains Input Over & Under Voltage, Over Current, Loss of Input Phase, Over Temperature Amplifier & Shaker, Field Fail, Cooling, User Safety Interlock if specifically required by the customer			
Safety Compliance	System complies and marks to the international safety requirements w.r.t. CE and CSA			

Shaker Characteristics

SEV 440 Series Shaker	SEV 440	SEV 440	SEV 440	SEV 440
Moving Element Mass	50 kg	50 kg	50 kg	60 kg
Internal Load Capability	550 kg	550 kg	550 kg	550 kg
Suspension Axial Stiffness	15 kg/mm	15 kg/mm	15 kg/mm	15 kg/mm
Suspension Cross-Axial Stiffness	500 kg/mm	500 kg/mm	500 kg/mm	500 kg/mm
Stray Magnetic Field**	< 1 mT (10 gauss)	< 1 mT (10 gauss)	< 1 mT (10 gauss)	< 1 mT (10 gauss)
Cooling Air Flow	2000 cfm	2000 cfm	2000 cfm	3000 cfm
Compressed Air***	6 bar (87 psi)	6 bar (87 psi)	6 bar (87 psi)	6 bar (87 psi)
Shaker Body Mass	5000 kg	5100 kg	5000 kg	6000 kg
Dimensions (L x W x H)	1605 x 985 x 1245 (mm)	1605 x 985 x 1245 (mm)	1605 x 985 x 1245 (mm)	1700 x 1080 x 1345 (mm)

Amplifier Characteristics

DSA Series Amplifier	DSA 48K	DSA 56K	DSA 60K	DSA 80K
Power Output	48 kVA	56 kVA	60 kVA	80 kVA
Total Harmonic Distortion****	Typically 0.5%	Typically 0.5%	Typically 0.5%	Typically 0.5%
Input Impedance	> 10 k Ω	> 10 k Ω	> 10 k Ω	> 10 k Ω
Input Sensitivity	4 Vrms, Compatible with all standard controllers	4 Vrms, Compatible with all standard controllers	4 Vrms, Compatible with all standard controllers	4 Vrms, Compatible with all standard controllers
Signal-to-Noise Ratio	> 70 dB	> 70 dB	> 70 dB	> 70 dB
Power Efficiency	> 90%	> 90%	> 90%	> 90%

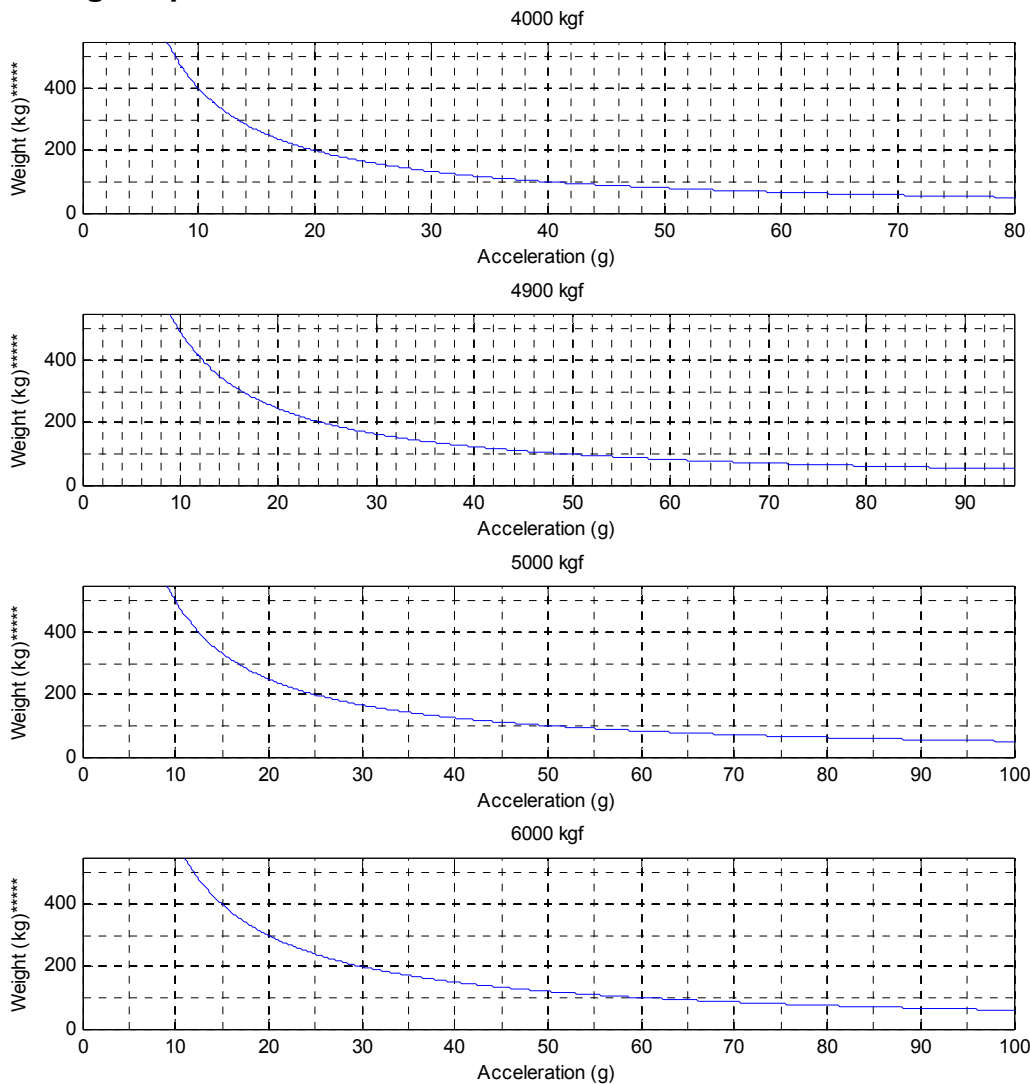
Amplifier Insert Pattern

Pattern	PCD	PCD	PCD
Position of Insert	Centre	200 mm	400 mm
No. of Inserts (Total – 17)	1	4	4

Safety Norms

CE	Complies with 73/23/EEC Low Voltage Directive, 89/336/EEC Electromagnetic Compatibility Directive and 98/37/EC Machinery Directive
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Acceleration vs. g Graph



Notes:

1. *For transient shock operation
2. **150 mm above armature head
3. ***Compressed air to be provided by customer at installation site
4. ****Measured on pure resistive load
5. *****Excluding armature weight and attachment weight (if used)
6. Customised specifications are also tailored on request
7. Please contact Sdyn for advice on the optimum specifications to meet your testing requirements
8. Specifications are correct at the time of publication and are subject to improvement or amendment without prior notice