

The SignalForce® GW-V300 shaker is an excellent choice for structural testing applications. The GW-V300 offers a 5.5 inch (140 mm) armature diameter with peak to peak displacement of 0.5 inches (12.7 mm).

Standard Features

- Peak sine force: up to 370 lbf (1646 N)
- Random force rms: up to 190 lbf (849 N)
- Peak acceleration (sine): 98 g (961.1 m/s²)
- Velocity peak: 57 in/sec. (1.45 m/sec)
- Peak to peak displacement: 0.5 in (12.7 mm)
- Exceptional axial and torsional stability
- Recommended load: 0 to 10 kg
(Increasing load reduces max. displacement unless the ILS option is selected)



Options

- Standard trunnion with isolation options
- Low frequency isolating trunnion
- Metric & Imperial table threads
- Vertical isolation
- Monobase
- Pneumatic load support ILS
- Degauss
- High frequency analog amplifier
- Quiet mode

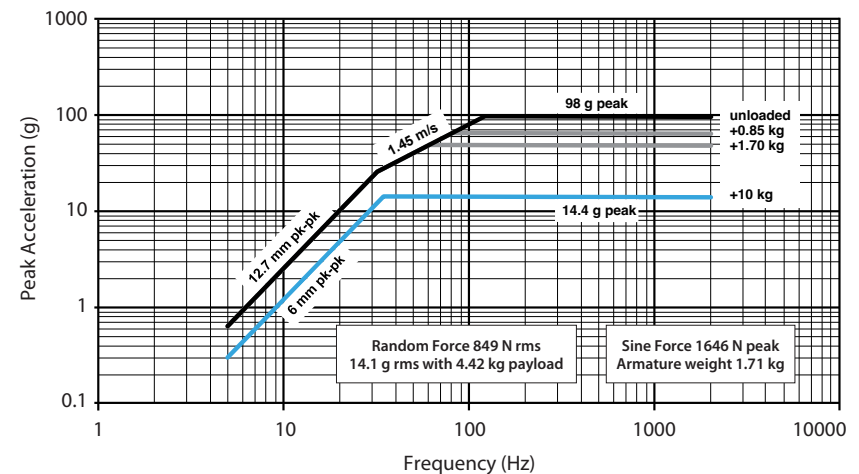
Typical Applications

- Vibration testing to 5000Hz with standard amplifier
- Sensor testing and calibration
- Small component vibration testing
- Structural testing / modal excitation

Sine Performance Envelope

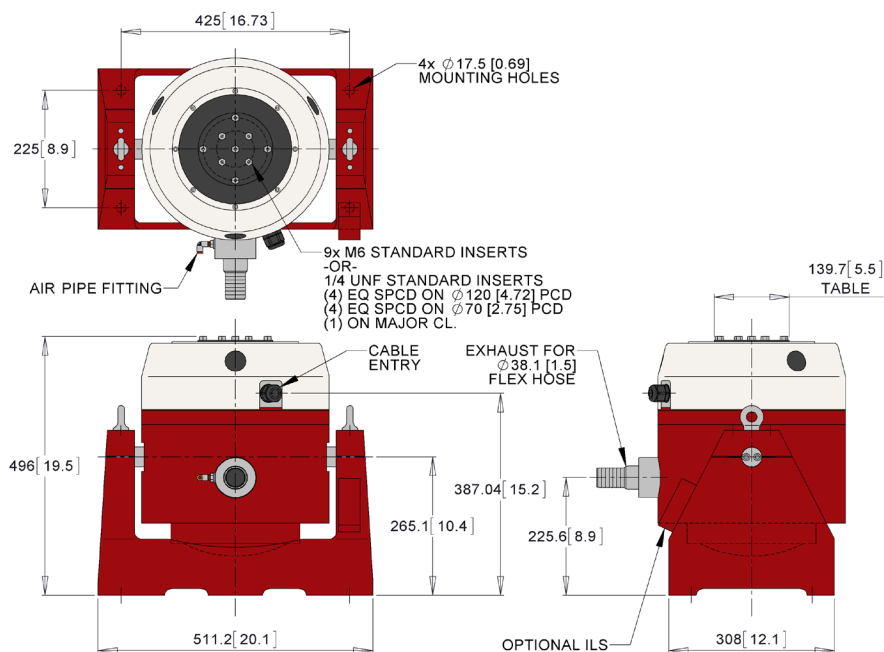
GW-V300 / DSA5-1K

Bare table = ■ 22 lbs (10 kg) load = ■

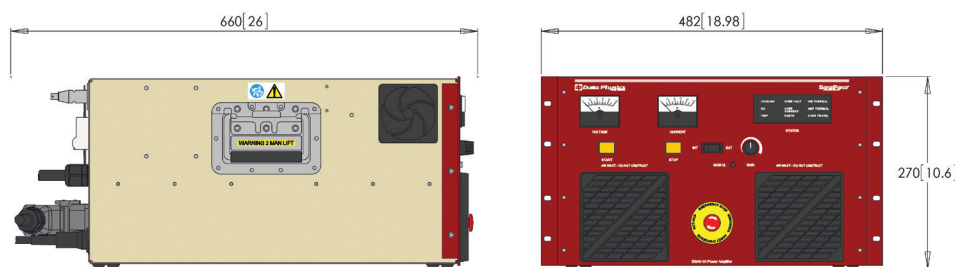


	Maximum Sine Force (pk)		Maximum Random Force ¹ (rms)		Maximum Shock Force ²		Maximum Acceleration (Sine)		Maximum Velocity		Displacement Peak to Peak		Armature Diameter		Armature Mass		Insert Threads		Armature Resonance +/- 5%	Frequency Range (Hz)		Static Load Support – Axial Stiffness		Static Payload Support ³		Electrical Power Consumed ⁴	Shaker Body Mass ⁵		Stray Magnetic Field ⁶	
	lbf	N	lbf	N	lbf	N	g	m/s ²	ips	m/s	in	mm	in	mm	lbs	kg	UNF	Metric	Hz	Min.	Max.	lbf/in	kgf/mm	lbs	kg	kVA	lbs	kg	Gauss	mT
GW-V300/DSA5-1K	370	1646	190	849	784	3490	98	961.1	57	1.45	0.5	12.7	5.5	140	3.8	1.71	1/4-28	M6	4600	DC	5000	179.2	3.2	200	90	2.7	353	160	37	3.7

GW-V300



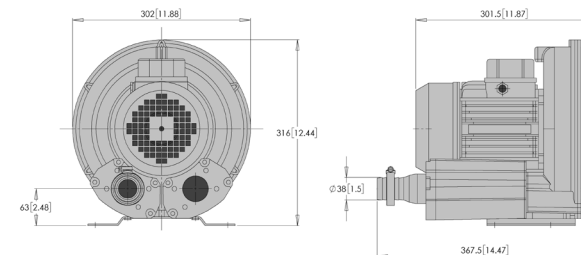
DSA5-1K Amplifier



Cooling Blower

Side Channel Vacuum Blower
Supplied hose length is 10 ft (3 m).

Height 12.44" (316 mm)
Width 11.88" (302 mm)
Depth 14.47" (367.5 mm)



NOTE: Cooling blower height, width & depth subject to a tolerance of +/-80 mm.

Performance Notes Drawing measures are in millimeters [inches]. 1. Random force based on flat spectrum 20 Hz – 2 KHz @ 3 sigma with a non-resonant payload equal to or greater than twice the moving system mass. 2. For a 6 ms half sine shock pulse. 3. Capacity with load support option. 4. System utility including cooling blower. 5. Includes vertical isolation option. 6. Stray field @ 25mm above the table, with degauss option.

Environmental Characteristics

Ambient Working Temperature Range

Shaker	32°F to 77°F (0°C to 25°C) #
Amplifier (full power)	104°F (40°C), de-rated at 2% per degree C up to 113°F (45°C) max
Humidity	max 95% (non-condensing)

Acoustic Noise @ 1m

Shaker	Up to 105 dB (A) @1m ##
Amplifier	63 dBA @1m
Blower	66 dB (A) @1m ###

Facility Requirements

Power supply range	115V or 230V AC, 50/60Hz Single Phase When operated on 115V two separate supplies are required. Blower start with amplifier start is not functional.
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Shaker to amplifier cable	10 ft (3 m) fixed to shaker
Shaker to cooling blower	10 ft (3 m) hose

DSA5-1K Amplifier Characteristics

Rated Power	1 kVA
Switching Frequency	100 kHz nominal
Input Sensitivity	1.414 V rms for full output
Input Impedance	10 K ohm
Voltage Output	82 V rms
Current Output	14 A rms for full output
Signal to Noise Ratio	> -75 dB at full output
Distortion at rated output	< 1.0% approx. at 1 KHz
Cooling	200 CFM (0.094 m ³ /s)

DSA5-1K Amplifier Dimensions

Height	10.6" (270 mm)
Width	19.0" (482 mm)
Depth	26.0" (660 mm)
Weight	93 lbs (42 kg)

Shaker Dimensions

(on trunnion / less exhaust)	
Height	19.5" (496 mm)
Width	20.1" (511 mm)
Diameter	13.7" (349 mm)

(May vary with mounting options)

Shaker Mass Including Trunnion

463 lbs (210 kg)

Performance de-rating will apply above 77°F (25°C)
Maximum value at full performance without payload.
Noise reduction enclosure available for cooling blower