

The SignalForce® GW-V350 shaker is an excellent choice for automotive squeak and rattle testing applications. The GW-V350 offers a 5.0 inch (127 mm) armature diameter with peak to peak displacement of up to 1 inch (25.4 mm).

Standard Features

- Peak sine force: up to 697 lbf (3100 N)
- Random force rms: up to 505 lbf (2240 N)
- Peak acceleration (sine): 93 g (912 m/s^2)
- Velocity peak: 50 in/sec. (1.27 m/sec)
- Peak to peak displacement: 1 in (25.4 mm)
- Exceptional axial and torsional stability
- Recommended load: 0 to 18 kg*

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
- Thermal barriers
- Acoustic enclosures
- Weatherproof enclosures for cooling blowers

Typical Applications

- Sensor testing and calibration
- Small component testing
- Automotive squeak and rattle testing
- Structural testing / modal excitation

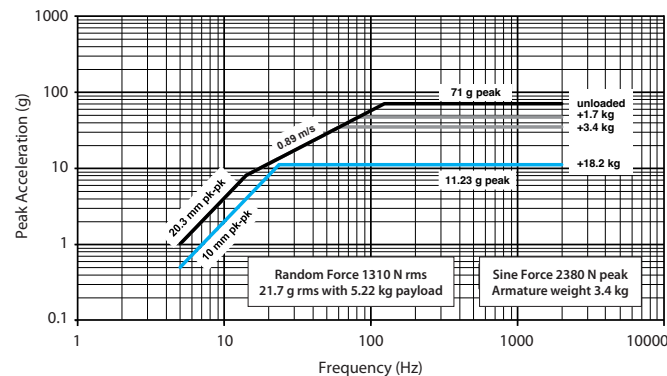
*(Increasing load reduces max. displacement unless the ILS option is selected)



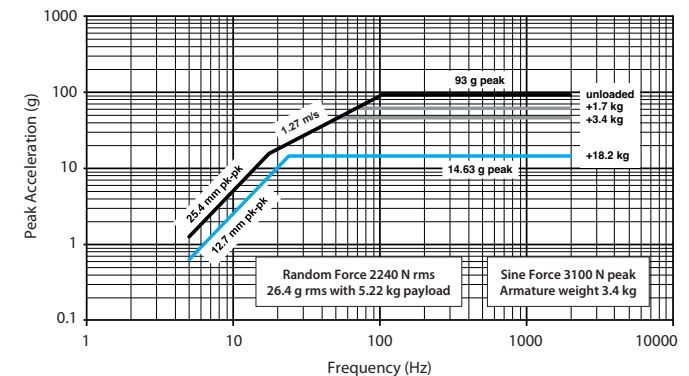
Sine Performance Envelopes

Bare table = ■ 40 lbs (18.2 kg) mass = ■

GW-V350 / DSA5-1K

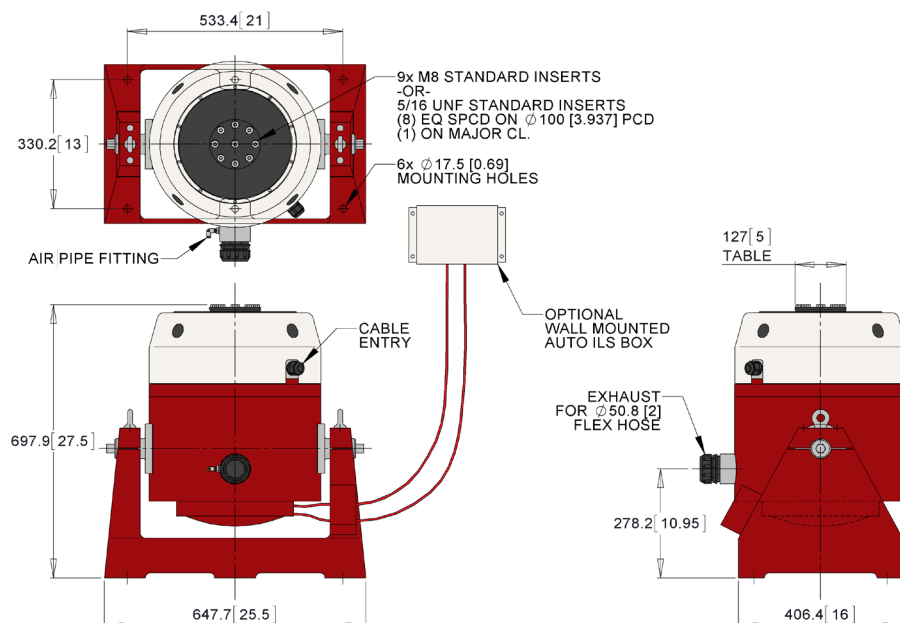


GW-V350 / DSA5-2K

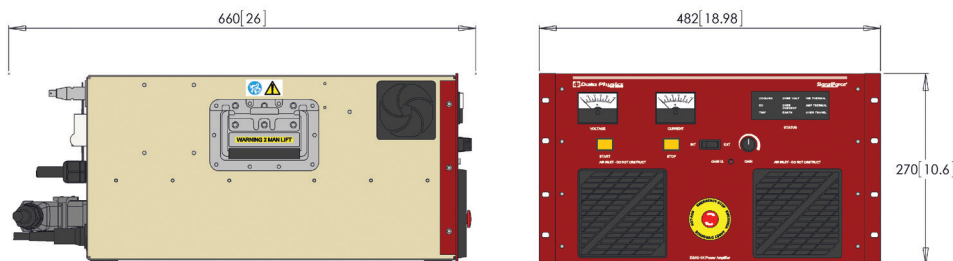


	Maximum Sine Force (pk)		Maximum Random Force ¹ (rms)		Maximum Shock Force ²		Maximum Acceleration (Sine)		Maximum Velocity		Displacement Peak to Peak		Armature Diameter		Armature Mass		Insert Threads		Armature Resonance +/- 5%	Frequency Range (Hz)		Static Load Support – Axial Stiffness		Static Payload 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-V350/DSA5-1K	535	2380	295	1310	1134	5045	71	696.3	35.5	0.89	0.8	20.3	5	127	7.5	3.4	5/16-24	M8	3500	DC	4000	453.5	8.1	250	114	3.7	728	330	32	3.2
GW-V350/DSA5-2K	697	3100	505	2240	1477	6572	93	912.0	50	1.27	1.0	25.4	5	127	7.5	3.4	5/16-24	M8	3500	DC	4000	453.5	8.1	250	114	5.5	728	330	32	3.2

GW-V350



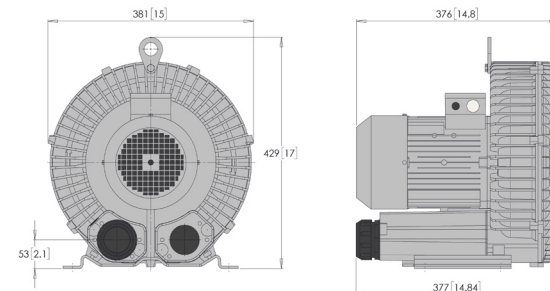
DSA5-1K and 2K Amplifiers* (*Common dimensions – DSA5-1K shown)



Cooling Blower

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

Height 16.89" (429 mm)
Width 15" (381 mm)
Depth 14.84" (377 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	DSA5-1K: 66 dB (A) @1m ### DSA5-2K: 72 dB (A) @1m ###

Facility Requirements

Power supply range	DSA5-1K: 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. DSA5-2K: 380V to 415V 50Hz 3 Phase 380V to 480V 60Hz 3 Phase
Shaker to amplifier cable	10 ft (3 m) fixed to shaker
Shaker to cooling blower	10 ft (3 m) hose

Amplifier Characteristics*

Rated Power	DSA5-1K: 1 kVA DSA5-2K: 2 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	DSA5-1K: 14 A rms for full output DSA5-2K: 28 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)

Amplifier Dimensions*

Height	10.6" (270 mm)
Width	19.0" (482 mm)
Depth	26.0" (660 mm)
Weight	DSA5-1K: 93 lbs (42 kg) DSA5-2K: 132 lbs (60 kg)

Shaker Dimensions

(on trunnion / less exhaust)	
Height	27.5" (697.9 mm)
Width	25.5" (647.7 mm)
Diameter	16.7" (425 mm)
(May vary with mounting options)	

Shaker Mass Including Trunnion

837.7 lbs (380 kg)

* Data is common except where noted.

Performance de-rating will apply above 77°F (25°C)

Maximum value at full performance without payload.

Noise reduction enclosure available for cooling blower