IMV VIBRATION TEST SYSTEMS

K series

IMV-Smart™
ECO-Shaker

Water-cooled Vibration Test Systems

K350/EM36HAM

K-series vibration test system is ideal for testing of large sized specimen with high acceleration test requirements, in the field of electronic assemblies, automotive parts, aviation, avionics parts satellite. K-series is designed to meet international test standards including IEC, ISO and JIS.

IMV's patented upper (armature) support system; Parallel Slope Guide has improved the durability of the system extending the lifetime of the upper guidance system, with a lifetime of up to several times greater than the other standard shaker. Extended displacement available up to 4 inch with K-series.

1. High-excitation-force and long stroke

Force rating up to 45,000 lbf, wide frequency range up to 3,000. To allow long stroke testing, maximum displacement 4 inch is available with K125 shaker.

PSG guide system

2. Easy maintenance

All connections of electricity and water are in the upper part of the armature. It is easy to inspect and change the armature

3. Improvement of testing environment

No exhaust noise of the cooling blower. Further, with the operation of intelligence Shaker Management (ISM), EM range can reduce power consumption and CO2 emissions automatically.

eco-shaker

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System Specification		
Frequency Range (Hz)		0-2,000
Rated Force	Sine (lbf)	78,700
	Random (lbf rms) *1	70,800
	Shock (lbf)	157,300
Maximum Acc.	Sine (g)	102
	Random (g rms)	71
	Shock (g peak)	204
Maximum Vel.	Sine (in/s) *3	79
	Shock (in/s peak)	138
Maximum Disp.	Sine (inp-p)	3.4
Maximum Travel (inp-p)		3.7
Maximum Load (lbs)		6,615
Power Requirements (kVA) *2		325
Breaker Capacity (A) *4		630 (total)

Vibration Generator (K350)	
Armature Mass (lbs)	772
Armature Diameter (ϕin)	29.9
Armature Resonance (Hz)	1,300
Allowance Eccentric Moment (lbf･in)	43,400
Mass (lbs)	92,595

Power Amplifier (EM36HAM-K350)	
Maximum Output (kVA)	400
Amplifier Bay	7
Mass (lbs)	12,015

Heat Exchanger (VE-HE-220-SA)		
Mass (lbs)		1,325
Environmental Data		
Input Voltage Supply (3ϕ, V)		220/480
Compressed Air Supply (psi)		102
Facility Cooling Water Flow (gal/min)		182 at Δt = 5℃
		66 at Δt = 10℃
Working Ambient Temperature	Shaker (℉)	32-104
	Amplifier (℉)	32-104

*1) Random force ratings are specified in accordance with ISO5344 conditions. Please contact IMV or your local distributor with specific test requirements.
*2) Power supply: 3-phase 220/480 V, 60 Hz. A transformer is required for other supply voltages.
*3) If the tests (Sweep or Spot) include high velocity, the maximum velocity value should be reduced to 5.5 in/s.
*4) Breaker capacity for 480 V
* Frequency range values vary according to sensor and vibration controller.
* Armature mass and acceleration may change when chamber is combined.

Vibration Generator (K350)

a: W 118.9 in
b: H 90.8 in
c: D 81.9 in
d: 64.2 φin

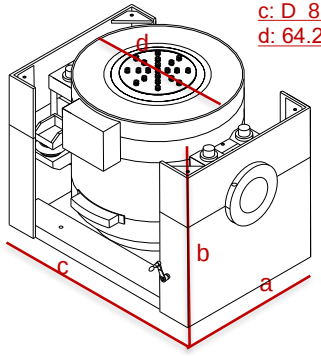
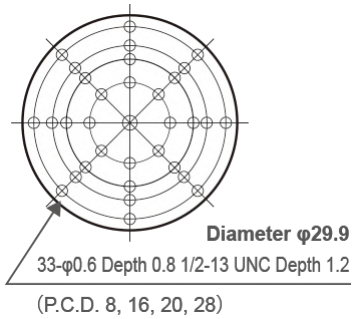
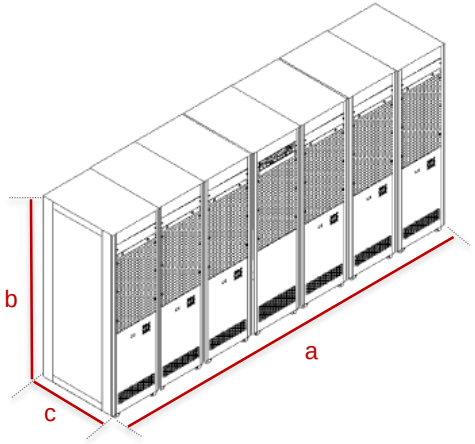


Table Insert Pattern (unit: inch)



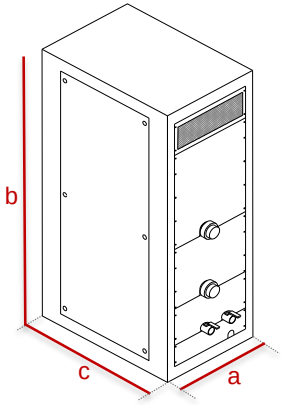
Amplifier (EM36HAM-K350)

a: W 161 in
b: H 77 in
c: D 34 in



Heat Exchanger (VE-HE-220-SA)

a: W 47 in
b: H 77 in
c: D 55 in



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