IMV VIBRATION TEST SYSTEMS

K series

Water-cooled Vibration Test Systems

K125LS/SA20HAG
K125LS/EM20HAG

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 100 mm (4 inch) with K series.

1. High-excitation-force and long stroke

Force rating up to 200 kN, wide frequency range up to 3,000. To allow long stroke testing, maximum displacement 100 mm (4 inch) is available with K125LS 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			
System Model		K125LS/SA20HAG	K125LS/EM20HAG
Frequency Range (Hz)		0-2,000	
Rated Force	Sine (kN)	125	
	Random (kN rms) *1	125	
	Shock (kN)	250	
	High Velocity Shock (kN)	-	165
Maximum Acc.	Sine (m/s²)	1,000	
	Random (m/s² rms)	700	
	Shock (m/s²)	2,000	
	High Velocity Shock (m/s²)	-	1650
Maximum Vel.	Sine (m/s)	2.0	
	Shock (m/s peak) *3	2.0	
	High Velocity Shock (m/s peak)	-	3.5
Maximum Disp.	Sine (mmp-p)	100	
	Maximum Travel (mmp-p)	116	
Maximum Load (kg)		2,000	
Power Requirements (kVA) *2		190	
Breaker Capacity (A)		350	

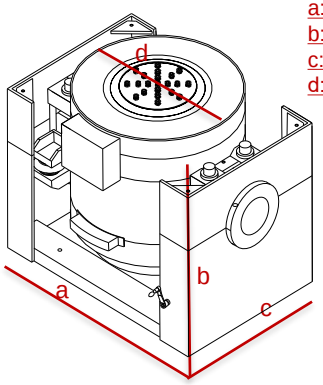
*1 Random force ratings are specified in accordance with ISO5344 conditions.
*2 Power supply: 3-phase 380/400/415/440 V, 50/60 Hz. A transformer is required for other supply voltages.
*3 If the tests (Sweep or Spot) include high velocity, the maximum velocity value should be reduced to 1.4 m/s.
*The specification shows the maximum system performance. For long-duration tests, system must be de-rated up to 70%.
Continuous use at maximum levels may cause failure. Please contact IMV if your system operates at more than 70%.
*For random vibration tests, please set the test definition of the peak value of acceleration waveform to operate at less than the maximum acceleration of shock.
*Frequency range values vary according to the sensor and vibration controller.
*Armature mass and acceleration may change when a chamber is added.

Vibration Generator (K125LS)	
Armature Mass (kg)	100
Armature Diameter (ϕmm)	560
Armature Resonance (Hz)	1,700
Allowance Eccentric Moment (Nm)	2,450
Mass (kg)	8,000

Power Amplifier	SA20HAG-K125LS	EM20HAG-K125LS
Maximum Output (kVA)	155	
Mass (kg)	3,300	3,350

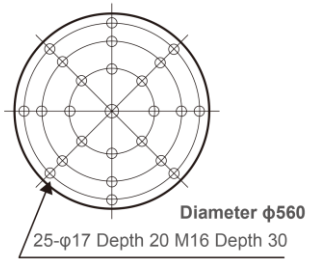
Cooling (VE-HE-150-SA)		
Mass (kg)		400
Environmental Data		
Input Voltage Supply (3ϕ, V)		380/400/415/440
Compressed Air Supply (Mpa)		0.7
Facility Cooling Water Flow Rate (l/min)		390 at Δt =5℃
		151 at Δt=12℃
Working Ambient Temperature	Temperature (℃)	0-40
	Amplifier (℃)	0-85

Vibration Generator (K125LS)

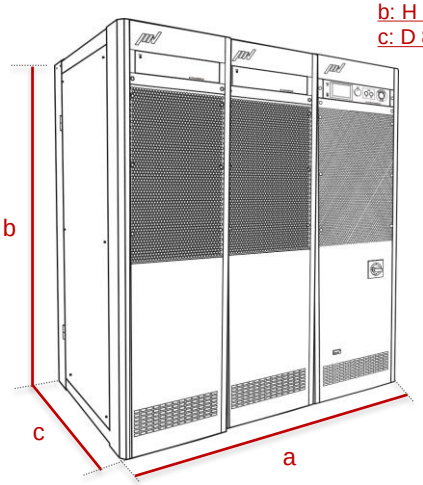


a: W 1,990 mm
b: H 1,546 mm
c: D 1,370 mm
d:1,100 φmm

Table Insert Pattern (unit: mm)

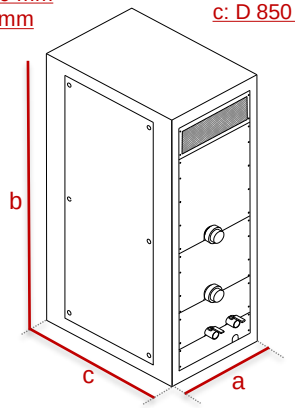


Amplifier (SA20HAG-K125LS/EM20HAG-K125LS)



a: W 1,740 mm
b: H 1,950 mm
c: D 850 mm

Heat Exchanger



a: W 580 mm
b: H 1,700 mm
c: D 850 mm

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