IMV VIBRATION TEST SYSTEMS

i series

Air-cooled Vibration Test Systems

i250/SA5HAG
i250/EM5HAG

Vibration tests have diversified and specifications have become increasingly strict.
i-series offer a user-friendly lineup with enhanced performance and durability.

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［**Expanded maximum test range**］
Max. velocity of Sine force: 2.2 m/s, Max. velocity of Shock force 2.2 m/s, Max. displacement: 51mmp-p
［**Patented upper (armature) support system PS Guide**］ Parallel Slope Guide is standard.
［**Low noise**］Optimised design of the air intake based on fluid dynamics has reduced the air-intake noise.
［**All models can be directly coupled to a climatic chamber.**］

① High durability with PS guide

PS guide (parallel slope guide) is an upper support system conforming to continued vibration testing at high velocity.

■PS guide system

② Improvement of Testing Environment

With the operation of Intelligence Shaker Management (ISM), EM range can reduce power consumption and CO2 emissions automatically.

eco-shaker

③ User first principle

Compatible with K2 vibration controller.
Intuitive interface leads
The operator with user-friendly guidance.

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System Specification		i250/SA5HAG	i250/EM5HAG
System Model			
Frequency Range (Hz)		0-2,500	0-2,500
Rated Force	Sine (kN)	40	40
	Random (kN rms) *1	40	40
	Shock (kN)	80	80
	High Velocity Shock (kN) *4	-	63
Maximum Acc.	Sine (m/s²)	1,142	1,142
	Random (m/s² rms)	800	800
	Shock (m/s²)	2,000	2,000
	High Velocity Shock (m/s² peak) *4	-	1,800
Maximum Vel.	Sine (m/s)	2.2	2.2
	Shock (m/s peak)	2.2	2.2
	High Velocity Shock (m/s peak) *4	-	3.5
Maximum Disp.	Sine (mmp-p)	51	51
	High Velocity Shock (mmp-p)	-	51
Maximum Travel (mmp-p)		68	68
Maximum Load (kg)		600	600
Power Requirements (kVA) *2		57	57
Breaker Capacity (A) *3		100	100

Vibration Generator (i250)	
Armature Mass (kg)	35
Armature Diameter (ϕmm)	440
Armature Resonance (Hz)	1,900
Allowance Eccentric Moment (N･in)	1,550
Mass (kg)	3,000

Power Amplifier	SA5HAG-i50	EM5HAG-i50
Maximum Output (kVA)	50	
Mass (kg)	880	930

Cooling (VAPE 710/P2R)		
Mass (kg)		250
Environmental Data		
Input Voltage Supply (3ϕ, V)		380/400/415/440
Compressed Air Supply (Mpa)		0.6
Working Ambient Temperature	Shaker (℃)	0-40
	Amplifier (℃)	0-85

*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 380/400/415/440 V, 50/60 Hz. A transformer is required for other supply voltages.
*3 Breaker capacity for 480 V.
*4 For high velocity option
*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 (i250)

a: W 1,463 mm
b: H 1,187 mm
c: D 1,100 mm
d: 860 φmm

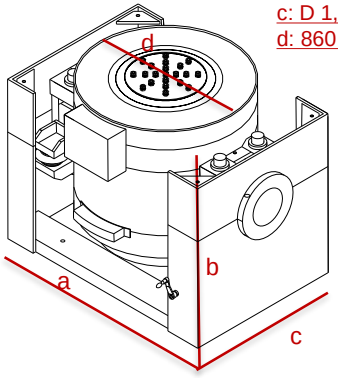
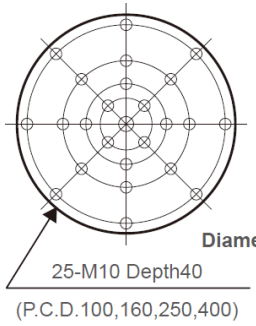
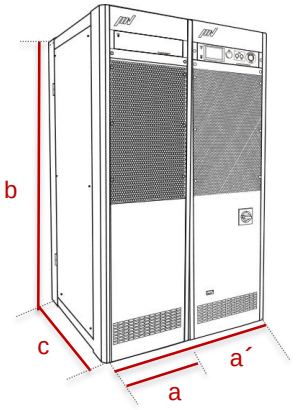


Table Insert Pattern (unit: mm)



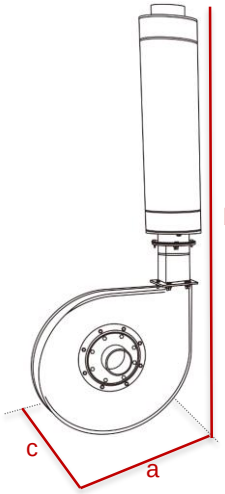
i250

Amplifier



SA5HAG-i50

a: W 580 mm
b: H 1,950 mm
c: D 850 mm



EM5HAG-i50

a´: W 1,160 mm
b: H 1,950 mm
c: D 850 mm

a: W 1,160 mm
b: H 2,405 mm
c: D 787 mm

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